

Funding of Key Program Projects in 2011

Serial number	Project Title	Applicant
1	Groups and Algebras—Representations and categorifications	Zhang Jiping
2	High dimension data modeling and analysis	Chen Songxi
3	New Explorations on Markov Processes and Related Areas	Chen Mufa
4	The researches on periodic orbits in Hamilton systems	Long Yiming
5	Nonlinear elliptic and parabolic equations	Chen Hua
6	Mathematical Theory and Methods for Sparse Information Processing	Peng Jigen
7	Analysis and Geometry of Manifolds	Li Jiayu
8	Topology of manifolds	Duan Haibao
9	Optimization in complex networks and its applications in systems biology	Zhang Xiangsun
10	Study on the multiscale dynamics in complex systems	Liu Caishan
11	Wave mechanics analysis & key technology research on the stress measurement and defect detection in complex wire ropes	Wu Bin
12	Key Mechanical Problems on the Failure of High Concrete Dam under Catastrophic Conditions	Ren Qingwen
13	Study on durability of RC members strengthened with FRP in subtropical service environments	Huang Peiyan
14	study on boundary layer of atmospheric environment and in city	Cui Guixiang
15	Research on Dislocation-induced Crystal Plasticity Behaviors at Submicron Scale	Zhuang Zhuo
16	Theory and experiment study of key problems in flexible multibody system dynamics	Hong Jiazhen
17	Research on the two-phase turbulent flow with submicron and nano-particles	Lin Jianzhong
18	Structure formation and the relevant mechanics problems of nanocrystal superlattices	He Linghui
19	A study of the complex flow accompanied with shock wave, turbulence and shear flow	Yang Jiming
20	Mechanism and basic mechanical theory for high-speed machining of metals	Dai Lanhong
21	Research on several essential mechanisms of linear explosive separation	Lu Fangyun
22	Investigation on star formation and X-ray evolution in normal galaxies	Li Xiangdong
23	Research on Astrophysics of Compact Objects	Zhang Shuangnan
24	Numerical simulations of Cosmic structure and Galaxy formation	Gao Liang
25	Studies on nonlinear interaction of convection in planetary interior	Liao Xinhao
26	Black hole accretion and AGNs feedback	Yuan Feng
27	The research on physical structures of central region in AGNs	Bai Jinming
28	Observations and studies of the evolution and outburst phenomena of cataclysmic variables and related objects	Qian Shengbang
29	The Spiral Structure and Kinematics of the Milky Way	Xu Ye
30	Ultrafast pulse deformation and its application to spectroscopy	Gong Qihuang
31	Experimental and theoretical study on exciton and carrier behavior in organic solar cell	Hou Xiaoyuan
32	Study on deep-cooling and precise-manipulating of ytterbium atoms applied for optical atomic clocks	Xu Xinye
33	Regulation of ferroelectric polarization on the electron transport process concerning electroresistance and magnetoresistance	Liu Zhiguo
34	Study on preparation, physical property modulation and quantum process of mixed atomic clusters with peculiar structures and properties	Wan Jian'guo

Serial number	Project Title	Applicant
35	Artificial sonic band-gap materials and ultrasonic devices	Chen Yanfeng
36	Mechanism of novel electroresistance materials	Zhao Yonggang
37	Growth and novel topological surface states of topological insulator thin films and hetero-structures	Xue Qikun
38	Study on key Science Problems of MgZnO based deep ultra violet detector	Shen Dezhen
39	Frontier research on strong field physics with mid-infrared lasers	Xu Zhizhan
40	Research on asymmetric borehole acoustics for anisotropic porous formations	Wang Xiuming
41	Structure designing and photoelectric property study on oxide heterostructures	Jin Kuijuan
42	Novel phenomena and fundamental mechanism of surface plasmon in micro/nano structures	Xu Hongxing
43	Transportation dynamics in complex networks and its related statistical foundation	Liu Zonghua
44	The nucleon structure study based on highly qualified GeV electron	Hu Bitao
45	TeV Physics and phenomenologies related to collider Experiments	Kuang Yuping
46	Research on physics and key technology in X-band high gradient accelerating structure physics	Chen Huaibi
47	Investigation of key reactions in hydrogen-and helium-burning processes in stars and nuclear properties on the rp-process path of nucleosynthesis	Sun Yang
48	New Methods for High Order Perturbation Calculations in Quantum Field Theories	Luo Minxing
49	Key Physics of the Dynamic Hohlraum Driven by Wire-Array Z-Pinches	Peng Xianjue
50	Time-and spacial-resolved synchrotron radiation studies on the dynamic process in functional materials	Wei Shiqiang
51	Theoretical Study of Some Fundamental Problems at the Frontiers of Neutrino Physics	Xing Zhizhong
52	Surface detector upgrading and study on the γ ray, cosmic ray electron and dark matter particle in 10—100TeV with Tibet ASy experiment	Hu Hongbo
53	Properties of quark matter and mechanism of QCD phase transition	Peng Guangxiong
54	Laboratory Study on dramatic energy releasing processes in universe	Li Yutong
55	Polyoxometalates based on dye-sensitized Zinc Oxide nanocrystals of solar cells	Su Zhongmin
56	Design and Synthesis of the Bose State of Inorganic Semiconductors	Feng Shouhua
57	Platinum-Based Nucleic Acids Recognition and Modification	Guo Zijian
58	Bimetallic nanocrystals; controllable synthesis and catalytic property study	Li Yadong
59	Controlling the multilevel nanostructures of noble-metal materials for catalysis applications	zheng Nanfeng
60	Preparation and function of cluster compounds	Hong Maochun
61	Organo-di-metallic Reagents; Synthesis and Applications	Xi Zhenfeng
62	Activation and transfer of small molecules promoted by the rare-earth metal complexes	Zhou Xigeng
63	Chemical research on green pesticide targeted on key plant virus	Song Baoan
64	Novel bioactives from stress-tolerant and uncultured microbes	Tan Renxiang
65	Synthesis, structure and supramolecular chemistry of novel and functional macrocyclic molecules	Wang Meixiang
66	Biomimetic synthesis of natural product with important bioactivity	Qin Yong
67	Studies on the functionalization and application of fullerenes	Wang Guanwu
68	Total synthesis of bioactive alkaloids	Ma Dawei
69	Discovery and functional study of the novel molecules with bioactivity from the toxic medicinal plants	Yu Shishan
70	Chemical modulation and application of surface structures of photoelectric functional systems	Wang Yuan
71	The structural and hotspots prediction for WD40-repeat protein superfamily and design discovery	Wu Yundong
72	AceK	Jia Zongchao

Serial number	Project Title	Applicant
73	Scientific bases for the rational design of energy and environmental catalysts	Xu Xin
74	Establishment and development of an advanced new generation of polarizable force field— New method for research and modeling of structures and properties of complex molecule systems	Yang Zhongzhi
75	Theoretical and Experimental Studies for the State-to-State dynamics of Molecular Photodissociation	Xie Daiqian
76	Theoretical Studies on Modification of Optical Functional Properties and Related Radiationless Processes of Photosensitive Organic Molecules and Fluorescent Proteins and Dynamics of their Excited States	Cao Zexing
77	Application of Mass Spectrometer and Photoelectron Spectroscopy in Atmospheric Nucleation	Huang Wei
78	Study on the Chemical Thermodynamics and Intermolecular Interaction of Complex Ionic Liquid Systems	Han Buxing
79	The research of the intrinsic catalytic properties of non-metallic nano-carbon materials	Su Dangsheng
80	Atom-economic reactions directed catalysis chemistry	Xia Chungu
81	Polymer brushes with rigid polymers as side chains: from controlled synthesis to properties	Fan Xinghe
82	Study on methodology in controlling chemical structure of CO ₂ copolymers	Lv Xiaobing
83	Transportation of Microliquids on Light-Controllable Polymer Interfaces	Yu Yanlei
84	Design, Basic Studies and Applications of Novel Bioadhesive Systems	Wei Yan
85	Multi-Valence Metal Complex-Containing Infrared Photonic Polymers; Design, Synthesis and Optoelectronic Properties	Wang Zhiyuan
86	Plastic deformation and cavitation mechanism of semicrystalline polymers under tensile stretching	Men Yongfeng
87	Researching on new biosensors and new target-drug systems for the early diagnosis and treatment of ovarian cancer	Yang Ronghua
88	Novel Methods for Highly Sensitive Detection of Biomarkers in Warning and Early Diagnosis of Cancer	Ju Huangxian
89	Sensing of biomolecules on functional material interface	Chen Hongyuan
90	New single-molecule detection methods, hyphenated techniques and their applications to in-vivo single cell analysis	Ren Jicun
91	Basic study on glycan structure of glycoprotein	Liang Xinmiao
92	Methodology for Investigations on Interactions Between Regulating Proteins and DNA damaged by Drugs	Wang Fuyi
93	Study on the structure-property relationships of new framework materials and their design	Zhong Chongli
94	Excited state of dye: energy-release regulation and function enhancement by molecular structure innovation	Peng Xiaojun
95	System analysis and optimization of life cycle models of the resource/energy chemical processes	Qian Yu
96	Non-equilibrium Thermodynamics in Interface Mass Transfer process	Lu Xiaohua
97	Achieving a family of HPA salt catalysts involving ILs for liquid-solid heterogeneous organic reaction systems	Wang Jun
98	Construction of micro-scale phase interfaces and preparation of novel functional materials with microfluidics	Chu Liangyin
99	Study on the fundamental key issues in the efficient beneficiation processes of CH ₄ in the Low concentrated coal bed methane	Li Jinping

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100	Design of Advanced Materials and Process Optimization for Efficient Separation and Dehydration of Bioethanol	Zhang Baoquan
101	Foundamental research on new technology and mass transfer mechanism of bio-chemical separation process based on the micro-nano interface modulation	Liu Huizhou
102	Aquatic Photochemical Transformation and Photoinduced Toxicity of Antibiotics; Mechanism and Computational Toxicology	Chen Jingwen
103	Biological toxicity effect of nanomaterials and their regulation	Yan Bing
104	Typical Progresses and Controlling Principles of Multitype Contaminants In Soil Environment	Zhu Lizhong
105	Photodegradation of Organic Pollutants	Zhao Jincai
106	Biosynthesis and metabolic regulation of typical type II polyketides	Yang Keqian
107	Structural insights into the molecular mechanism of the Acid Resistance by enteric bacteria	Shi Yigong
108	Small nucleic-acid binding proteins from hyperthermophilic Archaea	Huang Li
109	Genomics analysis on the evolutionary adaptation of the social behaviors of myxobacterial cells to oceanic conditions	Li Yuezhong
110	The mechanism of regulation of actin cytoskeleton on plant cell cytokinesis	Ren Huaiyun
111	Molecular Mechanisms of Receptor Protein Kinase Regulating Early Anther Cell Proliferation and Differentiation in Plants.	Ma Hong
112	The mechanism for the pollen-expressed transcription factor PTF1 family to control pollen tube polar growth and male-female interaction	Ye De
113	Influence of atmospheric nitrogen deposition on the ecosystem ^{15}N natural abundance and N cycling along a transect of Inner Mongolia grassland	Li Linghao
114	Stable isotope tracing study of the responses of key soil carbon and nitrogen processes of typical forests to available nitrogen in China	Li Shenggong
115	Coupling C and N cycling in the river-reservoir-watershed ecosystem	Zhang Quanfa
116	Impacts of changes in precipitation seasonal distribution on soil ecological processes of subtropical evergreen broadleaved forests	Shen Weijun
117	Molecular Basis of Tree Improvement for Fiber Production	Li Laigeng
118	Mechanisms on soil organic matter maintenance in secondary broadleaved forests naturally regenerated with artificial promotion measures	Yang Yusheng
119	Regulation of oxidative stress and programmed cell death by S-nitrosylation of proteins in Arabidopsis	Zuo Jianru
120	Phosphorylation of the microtubule-associated protein EB1; regulation and functions	Zhou Jun
121	The mechanism underlying glucose transportation regulated by a multiple protein complex based on Axin/TNKS/Kif3a	Lin Shengcai
122	Functional characterization of protein phosphatases in DNA double-strand break repair	Xu Xingzhi
123	Structural biology study of the important functional protein complexes related to DNA-damage repair	Teng Maikun
124	Regulation of the differentiation and activation of mononuclear-phagocyte lineage	Han Hua
125	Regulatory mechanisms of ubiquitination and sumoylation of IRF3 and their roles in antiviral innate immunity	Shu Hongbing
126	Research on biomimetic preparation of Osteochondral composite tissues repair materials and its regeneration mechanism	Yang Liu
127	Mechanism and before clinical research on Activated Endogenous neural stem cells repairing spinal cord injury by an Biomaterial scaffold	Li Xiaoguang
128	Molecular mechanisms underlying targeting fidelity of neuronal circuits	Ding Mei

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129	Interaction between Olfactory Ensheathing Cells and Olfactory Receptor Neurons and the underlying mechanisms	He Cheng
130	Practice makes perfect: The neural mechanisms of practice effect and its application	Xue Gui
131	The involvement of BDNF in memory formation and extinction on the basis of neural circuitry	Chen Zheyu
132	Neural and genetic regulation of individual and collective decision-making in Drosophila	Guo Aike
133	Regulation mechanism of metabotropic γ -aminobutyric acid receptor in aging	Liu Jianfeng
134	Inhibitory Effect of Dopamine Receptor on α/β 1 and AT1 Receptor in Hypertension	Zeng Chunyu
135	Regulatory role of novel endogenous sulfur-containing small molecules sulfur dioxide and cystathionine in the cardiovascular system	Du Junbao
136	The Effects and Mechanism of CYP Epoxygenase and Its Metabolites EETs on Cardiac Hypertrophy and Myocardial Injury	Wang Daowen
137	Genetic and molecular mechanisms of hybrid sterility and wide compatibility regulated by the S5 system in rice	Zhang Qifa
138	Epigenetic Inheritance of Plant Centromeres	Han Fangpu
139	Study of molecular regulating network of adipogenesis with systems biology approaches	Wu Jiarui
140	Study on the new mechanism by which IKK can inhibit the TNF α -induced cell apoptosis	Lin Anning
141	The molecular mechanisms of translation control in germline development	Chen Dahua
142	Mechanistic study of cardiac prodrum formation and development	Yang Zhongzhou
143	Molecular genetics of liver primordium	Luo Lingfei
144	Molecular Basis of Synergistic Improvements of Cotton Fiber and Seed	Pei Yan
145	the molecular mechanism of recessive male sterility and its utilization in Brassica napus	Tu Jinxing
146	Study on structural elucidation of polysaccharides from food materials and the mechanism of their biological activities	Xie Mingyong
147	Mechanism of change in starch and protein and other major food components in health food manufacturing	Li Lin
148	Mechanisms of nitrogen catabolite repression during food fermentation and its regulation	Chen Jian
149	The disaster-causing mechanism and new strategy for control of white-backed planthopper transmitted-Southern rice black streaked dwarf virus	Wei Taiyun
150	Study on development mode and molecular mechanisms for insecticide resistance in major insect pests of rice	Han Zhaojun
151	Inheritance and Regulation Mechanism of the Short Juvenility in a Precocious Mutant of Tri-lobate Orange among Citrus Resources	Hu Chun'gen
152	Evaluation, identification and exploitation of drought-cold resistant for vitis germplasm	Li Shaohua
153	Transcriptional and post-transcriptional regulation of flower opening quality by ethylene in roses	Gao Junping
154	The evolution and molecular adaptation of Tibetan fishes	Chen Liangbiao
155	Sex pheromone coding in two Helicoverpa species and its genetic basis	Wang Chenzhu
156	Functional research of key genes in brain evolution of primates	Su Bing
157	Interaction of CSFV and host protein and molecular mechanism of modulation of CSFV replication and assembly	Tu Changchun
158	Study on lead structures and their targets of anti-hemolysins of pathogenic bacteria	Deng Xuming
159	QTL mapping and gene function dissection for important economic traits in scallop	Bao Zhenmin
160	Study of anti-hemorrhage related genes in grass carp	Wang Yaping
161	Functional and mechanism analysis of shrimp antiviral related genes	Wang Jinxing

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162	Screening and functional analysis of sex determining gene(s) and sex determination mechanism in half-smooth tongue sole	Chen Songlin
163	The molecular mechanism of baculovirus per os infection.	Hu Zhihong
164	Regulatory Mechanisms of Nuclear-encoded Chloroplast Protein Translocation	Zhang Lixin
165	Functional mechanisms of phosphatidylinositol signaling pathway on plant growth and development	Xue Hongwei
166	Steady mechanism of social system in Golden snub-nosed monkey (<i>Rhinopithecus roxellana</i>)	Li Baoguo
167	Regulatory mechanism of AMP-activated protein kinase (AMPK)	Wu Jiawei
168	Structural study for leucine-rich repeat receptor-like protein kinases and relative signal pathway	Chai Jijie
169	The role of tRNA on quality control in protein biosynthesis and the novel function of tRNA	Wang Enduo
170	Study on the molecular mechanisms of large dense-core vesicles exocytosis	Xu Tao
171	the novel mechanisms of pain	Zhang Xu
172	mechanisms and functions of mitochondrial superoxide flash	Cheng Hepin
173	Studies on the genetic and physiological mechanism of DNA sulfur modification-restriction system	Deng Zixin
174	Canalization of transcriptome in relation to the function and evolution of microRNAs in <i>Drosophila</i>	Chung-I Wu
175	DEP1 controls shoot stem cell niche and grain yield in rice	Fu Xiangdong
176	The molecular genetic basis of hybrid reproductive isolation in rice	Lin Hongxuan
177	Characteristics of a novel phage and its endolysin, and biological structures of the lysin and its target on cell wall peptidoglycan	Han Wenyu
178	Paleo-temperature, paleo-precipitation and paleo-vegetation of the Holocene Megathermal in the climate-sensitive zone of northern China	Xiao Jule
179	Climatic and Environmental Changes in Arid NW China during the Last Glacial/Interglacial: Model and Mechanism	Chen Fahu
180	The interannual-interdecadal winter-spring climate variability and predictability for Northeast China	Wang Huijun
181	Radiation Effect of the Atmospheric Brown Clouds	Shi Guangyu
182	Towards the Understanding of the Transient Climate Evolution of the Last 21000 Years	Liu Zhengyu
183	Interacion and environmental effect of iron oxides and sulphate minerals with anaerobic bacteria	Chen Tianhu
184	The temporal and spatial distribution of geomicrobial functional group in cave systems in west Hubei province and the implication in palaeoenvironment	Wang Hongmei
185	Processes and mechanisms of adaptation to the extreme environments of intertidal zone by mangroves	Shi Suhua
186	The study of the Ediacaran Lantian Biota	Yuan Xunlai
187	Character and sequence of monsoonal events recorded in stalagmites from South China and their forcing mechanisms during the late Quaternary	Wang Yongjin
188	Fine seismic structures of the Earth's inner core surface and their temporal change	Wen Lianxing
189	Late Cenozoic conjugate strike-slip faults in SE Tibetan plateau	Wang Erqi
190	Petrogenesis of leucogranite and channell flow in southern Tibet	Wu Fuyuan
191	Testing the hypothesis "Continental collisions are primary sites of net continental crustal growth"	Niu Yaoling
192	A study on the accretional and reworking processes of the lower crust beneath the North China block	Zheng Jianpin

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193	Seismic Array for Deep Subducting Dynamics beneath Northeast China	Chen Qifu
194	Nuclear Magnetic Resonance Logging New Theory and technique of Complex Hydrocarbon Reservoir	Xiao Lizhi
195	Fundmental Problems in Seismic Imaging of Complex Structures	Fu Liyun
196	Coal Mine Disaster Events and Seismic Channel Waves Field Characteristic Demonstration Research-the Prospecting of Fault and Void in Changing Thickness Based on In-Seam Waves	Teng Jiwen
197	Marine controlled-source electromagnetic method for offshore hydrocarbon exploration	Li Yuguo
198	Characterization of Non-Stationary and Nonlinear Random Noise in Seismic data and Attenuation Countermeasure with Time-Space TFPF	Li Yue
199	Evolution of paleostructure and paleogeography during Paleozoic deformations and its constrain on the petroleum accumulation in the Tarim basin	Lin Changsong
200	The Cenozoic Ailaoshan-Jinshajiang Cu-Au metallogenesis associated with alkaline magma in continental tectonic setting	Bi Xianwu
201	Renewal processes of organic nitrogen fractions in arable soil and driven factors	Zhang Xudong
202	Modeling and Influencing Mechanism of Urban LUCC on PAHs Multi-media Cycle Process	Liu Min
203	Material Flux Modeling of Agricultural Landuse Systems at Several Intensive Farming Areas in China and the Assessment and Control of Environmental Risks	Liu Liming
204	Mechanisms and Controlling Factors of Methane Oxidation in Rice Field Soils	Lu Yahai
205	assessment of representation errors of satellite remote sensing retrieved CO ₂ and modeling of CO ₂ in lower atmosphere	Chen Liangfu
206	Responses of typical land surface processes to environmental changes and their comparisons of southeastern and southern Tibetan Plateau	Zhu Liping
207	Predictive mapping of key soil properties over Heihe Watershed	Zhang Ganlin
208	Watershed Land Surface Processes and Human Activity Adaptation	Taxifulati Teyibai
209	Natural nanoparticles in Chinese zonal soils; Its characterization and influence mechanism on the interface behavior of typical organic pollutants	Xu Jianming
210	A Study of the Mars-like Aeolian Geomorphology in Deserts of the Qinghai-Tibetan Plateau and Its Surrounding Areas	Dong Zhibao
211	Coupling mechanisms between ecosystem services and regional social well-being: Perspective of geographical integration analysis	Li Shuangcheng
212	Simulation on the environmental processes of mercury in the earth surface of North China	Wang Xuejun
213	Weathering of minerals, mineral nutrient transport and transformation in the granite regolith under climatic control: integrated studies mainly by using Sr, Li, B and Si isotopes	Liu Congqiang
214	Study on the impacting mechanism of aquifer structure deformation on regional water circulation under the drive of group coal mining	Zhang Fawang
215	Observation and simulation on water balance of typical mountain areas in arid regions	Ding Yongjian
216	study on novel rainfall runoff hydrological modeling in flood forecasting of semi-humid and semi-arid catchment	Li Zhijia
217	Ecological processes and water budget in the Qinghai Lake watershed	Li Xiaoyan
218	Watershed simulation of runoff generation by rainfall, snow, and glacier melt in arid region of Northwest China	Luo Yi
219	Study on Deformation Mechanism and Analytical Method of Large Deformation in Soft Roadway with High Ground Stress	Liu Quansheng
220	Interaction Mechanism of Natural Organic Matter in Lake Eutrophication: The Sources and Processes	Wu Fengchang
221	Three-dimensional Deformation and The Evolving Mechanism of Land Subsidence in Beijing	Gong Huili

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222	Study on the time-dependent deformation mechanism and stability of high slope under high geostress and large-scale excavation	Huang Runqiu
223	Study on intimate size interaction between inhalable mineral granules and common bacteria	Dong Faqin
224	Globalizing cities in Post-reform China: Process, Pattern, Dynamics and Space	Xue Desheng
225	The Impact of Rural-Urban Development Transformation on Resources and Environment and its Optimal Controlling : Case study of the area around Bohai Rim in China	Liu Yansui
226	Monitoring of N transformations in Chinese typical arable soils using technique of infrared photoacoustic spectroscopy	Du Changwen
227	A Study of Spatial Organization Mechanisms and Optimization Models for Integration in the Yangtze River Delta Region	Chen Wen
228	Methods and Applications in 3D High-precision Modeling of Tunnel Surrounding Rock Stability	Zhu Hehua
229	Studies on the geochemical process and human exposure levels of transformation product of higher brominated diphenyl ether	Fu Jiamo
230	Study on the feedback mechanism and hazard forecast of man-induced loess landslide	Peng Jianbing
231	Distribution, origin and health effect of polycyclic aromatic hydrocarbons in air and soil of China	Tao Shu
232	contribution of photosynthetic Picoplankton to biological pump in the South China Sea and ecological mediation	Huang Liangmin
233	Influences of the Three Gorges Dam on sediment dynamic processes and geomorphological evolution in the Yangtze estuary and delta area	Yang Shilun
234	Comparision study of process mechanism of nitrification and dinitrification between Pearl River estuary and northern South China Sea	Dai Minhan
235	Chemical defensive substances and their chemoecological effects of marine medicinal organisms from the coral reef ecosystem	Wang Changyun
236	Study of Mechanisms and predictability of Pacific Decadal Oscillation	Wu Lixin
237	The effects of Tibetan Plateau on water cycle and rainfall anomaly changes in Meiyu area	Xu Xiangde
238	The study of water and heat cycle and its effects on local climate at the typical ground surface in the source region of Yellow River	Lu Shihua
239	Mechanism of the East Pacific Stationary Wavetrain and its variability and impact on Atmospheric Circulations and Climate in the Northern Hemisphere for the Boreal Winter	Tan Benkui
240	Concurrent variation between subtropical and temperate jets over east Asia and its association with the climate anomaly in China	Zhang Yaocun
241	Dynamics of Tropical Cyclone Intensity and its Change	Tan Zhemin
242	Dynamics of Coronal Mass Ejections at Early Phase	Wang Yuming
243	Dynamical Coupling in the Ionosphere-atmosphere System	Wan Weixing
244	Combined recovery methods and simulation of multi-generation satellite gravimetry	Xu Houze
245	Key factors of soil corrosion and mechanism of high strength pipeline steels	Li Xiaogang
246	Cluster structure and properties of complex alloy phases	Dong Chuang
247	Alloy Phase, Phase Transition and Associated Properties Studied by Computation and Simulation of the Ternary Metal Systems	Liu Baixin
248	Biomimetic Fabrication of Metal Matrix Composites and Properties	Zhang Di
249	Electrochemical fundamental research on atmospheric corrosion of materials under thin electrolyte layer	Zhang Jianqin
250	Fabrication of aluminum-based bulk metallic glass materials	Wang Jianqiang

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251	Study on the Environmental Factors of Metal Corrosion and the Mechanism of Rusting Evolution in Typical Atmosphere	Wang Zhen'ao
252	Formation and degradation mechanism of corrosion product films of typical metallic materials in aqueous solutions	Zheng Yugui
253	Precipitation, Strengthening and Toughening Mechanisms in Age Hardenable Alloys	Nie Jianfeng
254	Multi-field coupling characteristics in ferroelectric functional composite materials and basic research for novel device applications	Dong Shuxiang
255	Basic Science of Microwave Response and Electromagnetic Properties at High-temperature towards Low-dimensional Radar Absorbing Materials	Cao Maosheng
256	investigations on low loss LTCC materials used in whole frequency range	Zhang Huaiwu
257	Mechanisms and applications of fs laser induced functional microstructures in transparent matrices	Qiu Jianrong
258	Research on Growth of Large Size Nonlinear Optical Crystals	Shen Dezhong
259	carbon/silicon quantum dots: controllable synthesis, PL properties tuning, and imaging guided therapy for cancer	Kang Zhenhui
260	Study of the building of nanostructures, their functionalization, and the interface interaction at the atomic and molecular level	Hou Jianguo
261	Basic Research on the Growth, Properties, and application of new-type UV and DUV nonlinear optical crystals	Wu Yicheng
262	Structural control of novel inorganic nano drug-carriers and study on the controllable release and targeted performance of anti-cancer drugs	Shi Jianlin
263	Effect of external and internal sulfates on hydration and hardening of Portland cement	Qian Jueshi
264	Preparation and Self-assembly of Polymer/Inorganic nanoparticles Composite Colloidal Spheres	Wu Limin
265	Cold flow behavior of polymer chain and its application in industry	Xue Qi
266	Formation and Modulation of Nanostructures in Thermosets and Properties of Nanostructured Polymers	Zheng Sixun
267	Study on the Polypeptide Dendrimers Based Drug Delivery Systems with Integrated Functions	Gu Zhongwei
268	Degradation induced failure of polymer materials at complexed conditions and the new stability approach	Li Guangxian
269	Elimination of organic pollutants using environmental catalytic fibers driven by multi-field	Chen Wenxing
270	Weak epitaxy growth of organic semiconductor crystalline films	Yan Donghang
271	Syntheses and properties of novel microporous organic polymer membranes	Zhang Suobo
272	The studies on ageing and degradation behaviors and new antiageing of organic polymer materials	Yang Mingshu
273	Study on stability of rock mass around subsea tunnel and its control mechanism	Zhang Dingli
274	Fundamental Research in Efficient Utilization of High Phosphorus Oolitic Hematite by Reduction	Han Yuexin
275	Basic study on preparation and control of microstructure of metal fiber porous materials	Xi Zhengping
276	Theory Basis Study on Gas Drilling	Liu Qingyou
277	Heat hazard control and heat energy utilization of deep mining	He Manchao
278	Study on fundamental scientific issues in flow assurance of deepwater flow lines transporting waxy/viscous crudes and natural gas	Zhang Jinjun
279	New application of structural analysis method on hydrometallurgical physical chemistry	Chen Qiyuan

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280	Investigation on Turbomachinery Complex Mechanic System Dynamic and Sound and Vibration Controlling	Gao Jinji
281	New Principle of Controlled Nano-polishing Technology for Large Scale KDP Crystal Optical Element	Guo Dongming
282	Robust design theory for mechanical key parts based on dynamic and gradual reliability	Zhang Yimin
283	Fundamental Research on Low Carbon Manufactory of Top-grade Metal-forming Equipments	Liu Zhifeng
284	A Novel Principle and Method of Free-form Surface Texture Fabrication based on Laser Projective Ablation by Galvanometer Scanning	Zeng Xiaoyan
285	New principle of integrated manufacturing and realization of new process for blade free-form surfaces	Zhao Ji
286	Theory and Key Technology on a New Short Precision Cast-rolling Forming Technology of Ring Parts	Li Yongtang
287	Innovation and Integrated Design of Lower Mobility Parallel Manipulators	Huang Tian
288	Research on rotary positioner of large stroke and sub-microradian scale accuracy with hybrid actuator and transmission	Fan Dapeng
289	Theoretical and experimental studies on the energy and mass durability of heat	Guo Zengyuan
290	Study on engineering thermal physical problems in indoor SVOC control	Zhang Yinping
291	Research on Mechanism, Modeling and Control of Internal Flow for Compressor	Yuan Xin
292	Studies of multi-scale and trans-scale problems in energy and environment discipline	Tao Wenquan
293	Study on Ignition, laminar flame propagation and chemical kinetics of typical fuelsv	Huang Zuohua
294	Investigation of flow characteristics and multi-field multi-scale coupling interaction mechanisms in gas-solid two-phase turbulent boundary layers	Fan Jianren
295	Interfacial phenomena and transport enhancement in multiphase photobiochemical conversion processes	Liao Qiang
296	Key Basic Problem of stator permanent magnet wind power generator	Cheng Ming
297	The Hybrid Offshore-sustainable Energy generation system	Ju Ping
298	Theory and method of State awareness and vulnerability assessment for smart grid	Cao Yijia
299	Research on Magneto-acoustic tomography based on lorentz source	Liu Guoqiang
300	Fundamental Research on Key Technologies of High Capacity Efficient Integrated Fly-wheel Energy Storage	Wang Dong
301	Research on reliability of power converter in renewable energy generation	Zhou Luowei
302	Study of function failure mechanism and aseismic safety evaluation of nuclear safety-related engineering structures under seismic load	Kong Xianjing
303	On the theories and methods of adaptive preservation and reuse of urban architecture heritages in China	Wang Jianguo
304	Urban Road Network Active Traffic Management and Control Theory based on Multiple Detection Data	Wang Yin Hai
305	Studies on the Sustainability-based Decision-making and Design of Large-Scale Public Building	Sun Yimin
306	Thermodynamic analysis on building thermal built environment	Jiang Yi
307	Water quality degradation mechanism and control principle of reclaimed water during surface storage	Hu Hongying
308	Research on high-performance steel-concrete composite bridge systems	Nie Jianguo
309	New technology and mechanism of UF membrane on drinking water based on process controlling	Qu Jiuhui

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310	Novel process and theory for urban wastewater advanced treatment based on highly effective separation and reclamation of pollutants	Liu Junxin
311	Theories and methods on long-term service behavior of huge hydraulic structure	Gu Chongshi
312	Hydrological processes in the desertified region and of its effect on the ecosystem	Liu Tingxi
313	Water environmental of coast and estuary by nuclear power plant	Fang Hongwei
314	Study on Quantitative Identification Method of Water and Mud Inrush Hazard Source Advanced Detection and Hazard Catastrophe Mechanism and Its Control Method in Hydraulic Tunnel	Li Shucui
315	Study on coupling dynamical theory for interaction of propulsion system and hull of large ships	Yan Xinping
316	Effects and mechanisms of ground cover rice production system (GCRPS) for saving water, preventing nitrogen pollution and reducing emissions of greenhouse gases	Zuo Qiang
317	Pressure fluctuation and flow-induced vibration of large-scale centrifugal pump system	Wang Fujun
318	Basic theory and critical technologies of dual logic based low power IP core design	Xia Yinshui
319	Research on metamaterials with active and micro-nano-scaled lumped elements	Ran Lixin
320	Retrieving temporal information of neuroimages and its applications in the CNS drug efficacy testing	Liu Yijun
321	integrated gas sensor using hierarchical composite nanostructures on silicon substrate	Tang Zhen'an
322	Principles and Technologies for high-speed and broadband terahertz modulation	Wen Qiye
323	Modulation of terahertz quantum cascade laser and real-time video transmission	Cao Juncheng
324	Research of Active and Intelligence Service for Mobile Networks	Chen Junliang
325	Collaborative coding and modulation theory and methodology of high data rate transmission in space network	Ge Ning
326	Wireless Channel Modeling and Application Used in Underground Railway transportation	Tan Zhenhui
327	Research On Theory and Key Technologies Of OFDM-PON	Wang Min
328	Basic Research on Remote Sensing Technology of Oceanic Dynamics with Shipborne High Frequency Surface Wave Radar	Xie Junhao
329	SAR data integrated process and environmental parameters inversion	Guo Huadong
330	Vison-based Tracking and Locating Ground Targets from an Unmanned Aerial Vehicle	Zhang Li
331	Research on Basic Theories and Key Technologies of SAR Imaging and Information Acquisition in near space	Song Jianshe
332	Research on Ontology-based Hybrid Machine Translation of Minority Language and Chinese	Huang Heyan
333	The foundational theory and key technology for open software system	Duan Zhenhua
334	Theory and Technique of Data Quality Management	Fan Wenfei
335	Facing public security multi-source isomeric data fusion for colony action analyzing and mining	Yao Hongxun
336	A Holistic Approach for Improving Programming Efficiency of Many-core Processors	Qian Depei
337	the research on high-efficiency scheduling theory and method for large-scale heterogeneous parallel system	Li Kenli
338	Theory and Technology of Mega Data Centers on Energy Efficiency and Scalability	Chen Guihai
339	Theory and Key techniques for verification of on-chip multi-core processors	Guo Yang
340	research of video coding, transmission and intelligent processing adapting to cloud computing environment	Huang Hua
341	Modeling of Complex Scenario and Super-High Resolution Rendering	Ma Lizhuang

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342	The Study of Prediction Methods of Protein-Protein Interaction and Protein Function Based on Machine Learning	Huang Deshuang
343	The Research of Fundamental Theories and Applications for Complex Spatio-temporal Knowledge Intelligent Processing	Liu Dayou
344	Text-level Chinese Semantic Parsing	Liu Ting
345	Design and Cryptanalysis of New Cryptographic Algorithms	Wang Xiaoyun
346	On Foundations of Data Security in Cloud Computing	Chen Kefei
347	Research on Post-IP network architecture and the key mechanisms	XIE Gaogang
348	Cross-Scale Perceptual Computing Theory and Key Technology for Mobile Social Network	Qin Zhiguang
349	Research on the Key and Fundamental Issues on Active Safety Control of High Speed Trains	Song Yongduan
350	Evaluation of in-service safety and performance of high-speed trains; investigation on key problems based on monitoring data	Jin Weidong
351	Study on intelligent sensing and comprehensive monitoring of high-speed railway status	Yu Zujun
352	Tactical Aircraft Flight Dynamics and Control laws for Vertical or Short Distance Take-off/Landing	Shi Zhongke
353	Modeling and control of motion reconstruction of space cooperative vehicles	Jia Yingmin
354	machine vision based froth flotation process modeling and optimization control	Gui Weihua
355	Real-time Performance Monitoring, Assessment and Optimization for Multi-Layer Process Control System	Su Hongye
356	Control Theory of Quantum System and Its Experimental Verification	Xi Zairong
357	Dynamic Evolutionary Modelling and Collaborative Control of Carbon Fiber Manufacturing Process	Ding Yongsheng
358	Development of high performance gas sensors for exhaust gases of gasoline/diesel automobile and H ₂ of fuel cell automobile	Lu Geyu
359	In situ fast detection method and implementation technique of nitrogen content in farmland soil	Zhao Chunjiang
360	Information dynamic storage and acquisition theory and technology based on the memories resistance	Shen Yi
361	Dynamics and Regulatory Mechanisms in Biomolecular Networks for Type 2 Diabetes	Chen Luonan
362	HF OTHR Information Processing and Fusion Based on Joint Decision and Estimation	Pan Quan
363	Visual Computing in Non-Euclidean Space	Tan Tieniu
364	Computational Modeling of Speech Production and Its Application on Speech Rehabilitation	Wang Lan
365	Study of Mechanism of Peripheral Nerve Function Regeneration and Neural Signal Decoding	Li Guanglin
366	Research on key technologies of growing AlN single crystals	Zheng Ruisheng
367	The research on next generation graphics processing SoC and key technologies	Han Jungang
368	The Development of Electrically Pumped Organic Lasers	Huang Wei
369	Research on the Key Scientific Problems of Amorphous Oxide Thin Film Transistors	Xie Hanping
370	Study of graphene field effect transistor and its integrated technology	Jin Zhi
371	The fundamental study of wireless, passive integrated sensors	Huang Qing'an
372	Research on the femtosecond laser hyperfine machining of refraction/diffraction hybrid optical elements	Chen Qidai
373	Fundamental research on super-resolution nano optical data storage	Wu Yiqun

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374	The study of a microstructured semiconductor laser with high performance	Zheng Wanhua
375	Basic research of high-speed laser optoelectronic components based on novel electro-optical ceramics	Qu Ronghui
376	Investigations of key technologies for high-sensitivity surface plasmon resonance fiber optic biological and chemical sensors	Peng Wei
377	Fundamental theories and key technologies of three-dimension cloakings at terahertz frequencies	Zhang Weili
378	Maskless and parallel nano scribe technology base on surface plasmon	Luo Xian'gang
379	Fundamental studies of cylindrical vector beams and their novel applications	Yuan Xiaocong
380	Research on high power short wavelength and narrow linewidth all-solid-state laser	Yang Feng
381	Investigation on high peak power and high energy hecto-picosecond laser pulse technology based on stimulated Brillouin scattering	Lu Zhiwei
382	Research on high average power ultrafast 2-micron lasers	Xu Jianqiu
383	Study on the fundamental theories and key technologies in laser generation and combining of high power fiber lasers	Zhao Wei
384	Building Chinese Survey Data Archive	Yuan Wei
385	China Health and Retirement Longitudinal Study	Zhao Yaohui
386	Datasets on China's Household Income Projects	Li Shi
387	Operational Management with Modeling of Integrated Regional Transport System	Mao Baohua
388	Research on multi-source information service system in cloud computing	Yang Shanlin
389	Research on Innovative Modes and Methods of Supply Chain Management in China	Zhou Yongwu
390	Theories and Methods of Optimal Management and Control in Compact Warehousing Systems	Xu Xianhao
391	Scheduling and Optimization of resources in clinical services	Xie Xiaolan
392	Research on Resources scheduling and Optimization in Healthcare Service	Shi YingKang
393	Modeling, Asset Pricing, and Risk Management in Complex Evolutionary Financial Systems; An Agent-based Computational Approach	Zhang Wei
394	Panel Data Modelling; Theory and Approaches	Cai Zongwu
395	Research on governance and evaluation of Chinese transnational business groups	Lin Runhui
396	Research on China's outward FDI and cross-border M&A strategy	Wu Changqi
397	New Generation Employees and Human Resource Diversity Management; Inclusion Based Multi-level Study	Tang Ningyu
398	A Research on Accounting Information and the efficiency of Resource Allocation	Lu Zhengfei
399	Customer Relationship and Marketing Channel Management based on the new generation of interactive technologies in Internet Environment	Zhuang Guijun
400	Research on R&D network, technological capability evolution and their interaction	Li Huan
401	Evolution Pattern of firm technological innovation capability in the context of economic structure transition, R&D networking	Wei Jiang
402	Study on logistics resource integration and scheduling	Xu Shoubo
403	Study on The Improvement and Management of Rural Financial System in China	Li Rui
404	The research toward Theories and Major Problem on Chinese Education Resource Allocation	Zhong Binlin
405	The Choice of Path and Management of China's Urbanization in the New Stage	Li Shantong
406	China's Urbanization under Inclusive Growth; Mechanism, Roadmap and Policy Adjustment	Wan Guanghua

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407	Theoretical and empirical study on petroleum security management towards global resources	Fan Ying
408	Study on Policy and Management of Chinese Information Resource Industry	Feng Huiling
409	Research on the Economic Security and Countermeasure for the Natural Gas Resource	Zhang Zongyi
410	The molecular mechanisms of HDAC2 and inflammasomes in regulation of Th17 in chronic airway diseases	Shen Huahao
411	The Mechanism of Vascular Endothelial Activation by Flow Shear Stress	Zhu yi
412	Identification of signaling pathways in early response and triggering endogenous protective machinery against vascular injury	Tian Xiaoli
413	Study of mirRNA let-7f/mir-27b on angiogenesis and wound healing in diabetes	Chen Fengyuan
414	The role and mechanism of microRNA in vascular injury and repair	Jing Qing
415	Role of transient receptor potential vanilloid 1 (TRPV1) cation channel in the early pathogenesis and lesion repairing of atherosclerosis	Zhu Zhiming
416	role of LPDCs in mediating the injury of immune barrier in intestine after traumatic shock	Liang Tingbo
417	The regulation and signal transduction of the interaction between platelet glycoprotein Ib-IX and von Willarbrand factor	Dai Kesheng
418	Molecular basis of the fetal-maternal cross-talk microenvironment determining the term pregnancy outcome	Wang Haibin
419	Role of Angiotensin II mediated tubulo-glomerular feedback loop in proteinuria induced tubulointerstitial inflammation and fibrosis.	Liu Bicheng
420	Wnt/ β -catenin signaling in renal fibrogenesis; role and the underlying mechanism	Liu Youhua
421	The new mechanism of chronic progressive renal fibrosis; the role of microRNA	Yu Xueqing
422	The effect of FoxO1 regulated target genes in pancreatic beta cell dysfunction in diabetes	Han Xiao
423	Sumoylation Regulation of Beta Cell Apoptosis and Functional Impairment in the Pathogenesis of Type 1 Diabetes	Wang Congyi
424	Grb10 and mTOR signaling; Function and Regulation in Pancreatic beta Cells	Liu Feng
425	MicroRNA and related signaling pathways regulate proliferation and function of pancreatic beta-cells	Wang Weiqing
426	Study on the molecular mechanism of neurons synaptic remodeling during retinal degeneration	Yin Zhengqin
427	Mechanisms and signal transduction pathways in preventing proliferation and epithelial-mesenchymal transition of lens epithelial cells by fabricating new drug delivery systems on intraocular lens surfaces	Yao Ke
428	Study on the pathogenesis and management strategy of uveitis through modulating DC by AhR, VitD3 and miRNA	Yang Peizeng
429	The genomic neuroimaging and related pathological mechanism study on vulnerability of substance dependence	Hao Wei
430	Research on mapping, cloning and function of causative genes for inherited paroxysmal diseases of the nervous system	Tang Beisha
431	Study the Genetic Susceptibility and Pathogenesis of Psychiatric Diseases	Shi Yongyong
432	Frontal cortical dysfunction in schizophrenia	Zhen Xuechu
433	Genetic Mechanism of Brain Network Connectivity in Schizophrenia	Li Tao
434	multifunctional ultrasonic contrast agent for molecular imaging and therapy	Wang Zhigang

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435	Basic research on the application of multifunctional heptamethine cyanine dyes for tumor targeted imaging	Shi Chunmeng
436	Mechanism of Myocardial Viability using Comprehensive Cardiac MR in Rat with Myocardial Ischemia	Gao Fabao
437	Mutant EGFR Molecular Imaging Probe and Molecular targeted Therapy response monitoring	Shen Baozhong
438	Quantificative evaluation of the interaction between the transplanted stem cells and the ischemic myocardium by MRI	Zhao Shihua
439	Pathogenicity and epitope mapping of envoplakin and periplakin	Zhu Xuejun
440	The Search for Psoriasis Susceptibility Genes in Chinese Han Population by Exome Sequencing	Zhang Xuejun
441	The molecular mechanism of oxidative stress triggering cellular immune reaction to vitiligo melanocytes	Gao Tianwen
442	Functional analysis on the TatD-like DNAs molecule of Plasmodium species and its correlation with malaria pathogenesis	Chen Qijun
443	The abnormality of tissue-specific mesenchymal stem cells in their regenerative properties and the underlying epigenetic mechanisms	Qiu Guixing
444	The negative regulation of central and peripheral high mobility group box-1 protein on cell-mediated immunity in sepsis	Yao Yongming
445	The role and mechanisms of alarmin HNP1-3 in initiating sepsis induced MODS and its potential therapeutic value	Fang Xiangming
446	The role of phosphorylated CUEDC2 in the tumorigenesis	Zhang Xuemin
447	Cancer stem cells and epithelial mesenchymal transition as a mechanism for androgen-independence process of prostate cancer	Gao Weiqiang
448	A critical role for Atm-mediated Smad1 phosphorylation in DNA damage response and oncogenesis	Li Baojie
449	The relationship of aneuploidy and the resistances of tumor molecular target therapy	Liu Qiang
450	The roles of PrLZ in non androgen dependent androgen receptor signaling in prostate cancer progression.	He Dalin
451	The role of autophagy related gene Atg7 in tumorigenesis	Cao Liu
452	The regulation and functional analysis of KLF4 in tumorigenesis	Liu Zhihua
453	KLF5-regulated epithelial proliferation, differentiation and carcinogenesis	Dong Jintang
454	Molecular regulation of mitochondrial autophagy and its role in cancer development	Chen Quan
455	Identification of a protein network in EMT-mediated chemo-resistance in prostate cancer	Zhang Jian
456	Genetic and epigenetic studies of AR network in individual differences in the development, progression, prognosis of prostate cancer	Xu Jianfeng
457	Epigenetics regulation in tamoxifen molecular mechanisms and resistance in breast cancer	Shang Yongfeng
458	combination of excessive energy intake and vitamin D and calcium deficiency on obesity and type 2 diabetes and dietary intervention	Sun Changhao
459	Study on biomarkers and early health effect of occupational exposure to diesel exhaust emissions	Zheng Yuxin
460	The Study on Genetic Mechanism of Reproductive Damages Induced by PAHs and PAEs	Cao Jia

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461	Prospective study on the influence of nutrition and genetic polymorphism on atherosclerosis	Ling Wenhua
462	Epigenetic effects of folic acid on Alzheimer's disease by DNA methylation	Huang Guowei
463	Microtransplantation improve the effects of graft versus leukemia and avoid graft versus host disease	Ai Huisheng
464	Character of mouse macrophage immune tolerance in mixed chimeras and molecular mechanism study	Zhao Yong
465	HMGB1/TGF-circle plays a critical role in the cardiac allograft vasculopathy	Xia Jiahong
466	The mechanism of MSCs-based therapy for liver failure	Zhang Yanyun
467	Mechanism of PBC pathogenesis and immunotherapy	Lian Zhexiong
468	Studies on the tumor combination therapy based on the molecular targeted drug delivery	Zhang Qiang
469	The study of brain-targeted drug delivery system oriented by small molecular straight-chain tertiary amine derivatives	Zhang Zhirong
470	Study on novel adipokines and insulin resistance	Miao Chaoyu
471	Present and remote effect on treatment of chronic obstructive pulmonary disease: three TCM therapies to tonify the lung and kidney by regulating the multi-dimensional molecule networks	Li Jiansheng
472	Biological mechanism responsible for the cross-talk between acupoints or their combinations and targeted organs	Zhu Bing
473	Study of Gushen Huatan therapy on treating Alzheimer's disease based on Amyloid cascade hypothesis pathway	Wang Ping
474	Regression and stablization of atherosclerotic plaques by eliminating sputum and removing stasis simultaneously	Wu Zonggui
475	Modern Research on Tangshenfang based on the mode of "system to system"	Luo Guoan
476	Modern Basic Research of SIWUTANG on holism	Gao Yue
477	Studies on bioactive compounds and integration of Chinese compound prescription based on the online chemical compounds' knockout/fishing and spectrum-effect relationship profiling	Li Ping
478	Study on the biology base of Daodi herbs	Chen Shilin
479	mechanism of enviromental affect on geoherbism on geoherbs	Guo Lanping
480	The substantial foundation and pharmacological mechanism of antidepressive effect of Xiao-Chai-Hu Decoction	Wu Chunfu
481	Regulation of CREG gene on iPS cell-based cardiogenesis and on iCM reprogramming	Han Yaling
482	The Role of MG53 in Diabetic Cardiomyopathy	Xiao Ruiping
483	The role of telomere, p53 and mTOR in bone marrow failure	Ju Zhenyu
484	The role of SIRT1 in maintaining kidney sodium balance and blood pressure	Hao Chuanming
485	Molecular mechanisms underlying central nervous system regulation of amino acid sensing and lipid metabolism	Guo Feifan
486	Regulation of hepatic glycogenesis and glucose/lipid metabolism by PPP1R3G	Chen Yan
487	Systemic study on the improvement of the bond durability of resinous adhesive restorations	Chen Jihua
488	Dual effects and molecular mechanisms of DAPK1-NMDA receptor interaction in ischemic cell death and regeneration	Lu Youming
489	Molecular and cellular mechanisms of nerve reconstruction by silk fibroin-based tissue-engineered nerve	Gu Xiaosong

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492	The mechanism of Coronavirus RNA capping and the function of its methylation apparatus	Guo Deyin
493	The transcriptional activity of novel AFP transcription repressor ZBTB20 and its role in hepatocellular carcinogenesis	Zhang Weiping
494	The potential role and mechanism of mTOR signaling in HBV induced hepatocarcinogenesis	Zhang Hongbing
495	Investigations on natural foci and epidemic patterns of tick-borne diseases	Cao Wuchun
496	Mechanism of the formation of aversive emotion memories of morphine withdrawal by actin rearrangement within the amygdala in rats	Liu Jinggen
497	Novel miRNA targets regulating ischemic arrhythmia and sudden death and the miRNA mechanisms under the therapeutic effects of Traditional Chinese Herbs	Yang Baofeng