

Curriculum Vitae

Personal information:

Name: Baisheng Nie (聂百胜)
Gender: Male
Date of birth: April 5th, 1973
Place of birth: Yuncheng, Shanxi, China
Work Unit: China University of Mining and Technology
Work unit address: D11, Xueyuan Road, Haidian District, Beijing 100083
Mobile phone: +8613671224746(China)
Tel. & Fax: +86-10-82375620
Email: bshnie@163.com

Education background:

Sep. 1998 - July 2001: PhD, Major in: Safety Technology and Engineering, China
University of Mining and Technology
Sep. 1995 - July 1998: Master, Major: Mining Engineering, Taiyuan University of
Technology
Sep. 1991 - July 1995: Bachelor, Major: Mine Ventilation and Safety, Shanxi Mining
Institute

Working experiences:

August 2011-August 2012: Visiting Scholar, Virginia Polytechnic Institute and State
University(USA)
July 2009-Date: Professor, Doctoral Supervisor & Deputy Secretary, China University
of Mining and Technology (Beijing), Beijing, China
Dec. 2003-June 2009: Associate Professor & Deputy Secretary, China University of
Mining and Technology (Beijing), Beijing, China
July 2003-November 2003: Lecturer, China University of Mining and Technology
(Beijing), Beijing, China
July 2001-June 2003 Post Doctor, Mobile Postdoctoral Center, China University of
Mining and Technology (Beijing), Beijing, China

Membership and Academic Title:

(1) Membership of International Society for Rock Mechanics

- (2) Membership of American Rock Mechanics Association
- (3) Membership of Chinese Society for Rock Mechanics & Engineering(CSRME), member of a council of Soft rock engineering and deep disaster control branch
- (4) Membership of China Association of Risk
- (5) National Registered Safety Engineer(China)
- (6) Vice Chairman of 2009 International Seminar of Coal Mine Disaster Prevention and Gas Control
- (7) Secretary-General and Academic Committee, First International Symposium on Mine Safety Science and Engineering

Awards in research:

- (1) National 2nd Award in Science and Technology Advance by The State Council of China, ranking the fourth, Coalmine Rockburst Electromagnetic Radiation Monitoring and Prediction Technology and Equipment and Its Applications (February 2007)
- (2) National 2nd Award in Safety Production Science and Technology Achievements by State Administration of Work Safety, China; ranking the second, Technology and Equipment on Abrasive Water Jet Cutting Anchor Cable and Locks of Roof (March 2011)
- (3) 2nd Award in Science and Technology, by China Occupational Safety and Health Association, ranking the first, Coal or Rock Stress-Electricity Coupling Theory and Technology on Dynamic Monitoring of Coal or Rock Stress Field in Mining Site (April 2010)
- (4) National 2nd Award in Safety Production Science and Technology Achievements by State Administration of Work Safety, China; ranking the first, Technology on Dynamic Monitoring of Coal or Rock in Mining Site (March 2009)
- (5) Excellent Science and Technology Promotion Project, by State Administration of Work Safety, ranking the first, Technology on Dynamic Monitoring of Coal or Rock in Mining Site (March 2009)
- (6) 2nd Award in natural science of colleges and universities by Ministry of Education, China; ranking the second, Theoretical and Experimental Research on Coal or Rock Damage Dynamics (January 2007)
- (7) 2nd Award of the first National Safety Production Science and Technology Achievements, ranking the second, Fundamental Research on Electromagnetic Radiation Law of Gas-Containing Coal or Rock Dynamic Damage and Its Applications (February 2003)
- (8) 1st Award in Science and Technology Advance of Coal Industry, ranking the eighth, Electromagnetic Radiation Prediction Technology for Gas-Containing Coal or Rock Dynamic Disasters and Its Applications (January 2003)
- (9) 2nd Award in Science and Technology Advance of China's Colleges and Universities, ranking the eighth, Electromagnetic Radiation Monitoring Technology for Gas-Containing Coal or Rock Dynamic Disasters and Its Applications (January 2003)
- (10) 2nd Award in Coal Science and Technology Advance, ranking the seventh, Promotion and Application of Rheology Theory and Technology in Coal and Gas Outburst and Rockburst Prediction (June 2000)

HONORARY TITLES

- (1) China youth supporters by Department of the central committee of the communist

- party, Ministry of Personnel and China association for science and technology (Dec. 2012)
- (2) New Century Excellent Talents Program from the Ministry of Education of China(2007)
 - (3) Beijing Science & Technology New Star Plan (2006)
 - (4) Sun Yueqi Award for Outstanding Young Scientists (2008)
 - (5) Obtained Fork Ying Tung Education Foundation for Young Teachers (April 2008)
 - (6) Distinguished Young Science and Technology Professionals in Coal Industry Production Frontline, by China Coal Society (November 2007)
 - (7) Member of International Society for Rock Mechanics
 - (8) Vice President of International Symposium on Prevention and Control of Gas Disaster in Coal Mine (2009)
 - (9) General-general of First International Symposium on Mine Safety Science and Engineering

Reviewer for journal

- (1) Engineering Applications of Computational Fluid Mechanics
- (2) Journal of China Coal Society(煤炭学报)
- (3) Journal of China University of Mining & Technology(中国矿业大学学报)
- (4) Journal of Beijing Institute of Technology(北京理工大学学报)
- (5) Coal Science and Technology (煤炭科学技术)
- (6) Journal of Safety Science and Technology(中国安全生产技术)
- (7) China Coal(中国煤炭)
- (8) Coal Engineering(煤炭工程)

RESEARCH PROJECTS

- (1) Famous Overseas Mentors program, by State Administration of Foreign Experts Affairs and Ministry of Education (May 2009-April 2014)
- (2) Research on Gas Absorption and Desorption Law in Broken Coal of Different Sizes, China National Key Basic Research Development Project Program (No. 2011CB201202) (Oct.2010-Sep.2015)
- (3) Characters of Coal Containing Gas Based on Image Processing and Industrial CT, the Fundamental Research Funds for the Central Universities (No. 2009kz03, Jan. 2010-Dec. 2012)
- (4) Research on Meso-CT Observation and Mechanism for Dynamic Process and Deformation of Coal Absorbing Gas, National Natural Science Foundation of China(No. 50874110) (Jan. 2009-Dec. 2011)
- (5) Seepage Rule of Whole Process of Loading Coal (No. 2005cb221502), China National Key Basic Research Development Project Program (973 Program) (Oct. 2005-Sep. 2010)
- (6) Method and Apparatus for Preventing and Controlling Coal and Gas Outburst by

- High-Pressure Pulse Water Injection, the National Key Technology R&D Program for the 11th five-year plan (No. 2006BAK03B0303) (2006-2009)
- (7) Development of Electromagnetic Radiation Testing and Analysis System during the Dynamic Process of Loading Coal or Rock, Instrument Project of National Natural Science Foundation of China (No. 50427401) (Jan. 2005-Dec. 2007)
 - (8) Fundamental Research on Acoustic Field Strengthened Coal Seam Gas Desorption, Diffusion and Seepage, National Natural Science Foundation of China (No. 50404015) (Jan. 2005-Dec. 2007)
 - (9) Dynamic Monitoring Technology for Coal or Rock Containing Gas in Mines, National Key Scientific Research Program for the 10th Five-year Plan (No. 2005BA813B-3-16) (Jan. 2005-Dec.2006)
 - (10) Program for New Century Excellent Talents in University by Ministry of Education (No. NCET-07-0799), (Jan. 2008-Dec.2010)
 - (11) Coal and Gas Outburst Prediction Technology and Apparatus Based on Electromagnetic Radiation Principle, National Key Scientific Research Program for the 10th Five-year Plan (No. 2005BA813B-3-09) (Jan. 2005-Dec.2006)
 - (12) Experimental and Theoretical Research on Dynamic Process of Coal Gas Absorption and Desorption, the Fok Ying-Tong Education Foundation for Young Teachers in the Higher Education Institutions of China (No. 111053) (April 2008-April 2011)
 - (13) Research on Safety Roof Collapse with Pre-mixed Abrasive Water Jet Cutting Technology, Key Science and Technology Research Program supported by Ministry of Education (No. 108135) (Jan. 2008-dec.2010)
 - (14) New Star Plan of Science and Technology in Beijing (No. 2006A081) (Sep.2006-Sep. 2009)
 - (15) Research on Electromagnetic Radiation Identification Technology for Coal or Rock Dynamic Disasters, China Postdoctor Science Foundation (No. 2002032120)

BOOK EDITORSHIPS AND TEXTBOOKS

- (1) Nie Baisheng, He Xueqiu: Ore seam injection method during mining process. China University Of Mining & Technology Apr, 16 2008: ZL200610113681.8, National Invention Patent of China
- (2) Nie Baisheng, He Xueqiu. Method for counting propagation velocity of pipeline gas explosion flame. China University of Mining & Technology Mar, 3 2010:

- ZL200910180417.X, National Invention Patent of China
- (3) Nie Baisheng, He Xueqiu. Method and equipment for suppressing gas from multiple continuous explosions. China University of Mining & Technology May, 26 2010: ZL200910092378.8, National Invention Patent of China
 - (4) Nie Baisheng, He Xueqiu: Method and apparatus for preventing and controlling coal or rock dynamic disaster by high-pressure pulse water injection. China University Of Mining And Technology Sep, 23 2009: ZL200910083416.3, National Invention Patent of China
 - (5) Qin Yueping, Yang Xiaobin, Nie Baisheng, Song Wei. Liquid injection self-boosting apparatus. China University of Mining & Technology Aug, 12 2009: ZL200910080442.0, National Invention Patent of China
 - (6) Qin Yueping, Nie Baisheng, Yang Xiaobin, Song Wei: Constant-pressure valve and seepage flow experiment system. China University of Mining & Technology Jul, 22 2009: ZL200810247352.1, National Invention Patent of China
 - (7) Qin Yueping, Yang Xiaobin, Nie Baisheng, Song Wei: Gravity hydraulic dead load energy-saving equipment and true triaxial creep experiment system. China University of Mining & Technology Jul, 29 2009: ZL200810247353.6, National Invention Patent of China
 - (8) Nie Baisheng, He Xueqiu. Mine pre-mixed abrasive water-jet cutting device. Nie Baisheng , Feb, 17 2010: ZL200920107633.7, Utility Model Patent of China
 - (9) Nie Baisheng, Chen Wenxue. Remote controlling equipment for loading coal body containing gas with computerized tomography monitor. China University of Mining & Technology, ZL201020578908, Utility Model Patent of China

BOOK EDITORSHIPS AND TEXTBOOKS

- (1) Electromagnetic Dynamics of Coal or Rock Rheology, Beijing: Science Press, 2003 (the third author)
- (2) Safety Psychology, Beijing: China Labor and Social Security Publishing House, 2007 (editor)
- (3) Safety Science and Engineering, Xuzhou: China University of Mining and Technology Press, 2008 (editor)
- (4) Safety Behavior Science, Beijing: China Machine Press, 2009 (second author)

Publications and papers:

- (1) Baisheng Nie, Xiangchun Li. Research on coal and gas outbursts caused by vibration blasting. Safety Science, Volume 50, Issue 4, April 2012, Pages 741–744(SCI)
- (2) Baisheng Nie, Xueqiu He, et al. The roles of foam ceramics in suppression of gas explosion overpressure and quenching of flame propagation. Journal of Hazardous Materials, 2011,192 (2): 741-747(SCI)
- (3) Xueqiu He, Baisheng Nie, Wenxue Chen, et al. Research progress on electromagnetic radiation in gas-containing coal and rock fracture and its applications. Safety Science, Volume 50, Issue 4, April 2012, Pages 728–735(SCI)
- (4) Tao Yang, Baisheng Nie, et al. Experimental research on displacing coal bed methane with supercritical CO₂. safety Science, Volume 50, Issue 4, April 2012, Pages

899–902(SCI)

- (5) Xueqiu He, Wenxue Chen, Baisheng Nie, et al. Classification technique for danger classes of coal and gas outburst in deep coal mines. *Safety Science*, 2010 (48):173–178(SCI)
- (6) Wang, E. Y., He, X. Q., Wei, J. P., Nie, B. S., et al. The Coupling Model of Stress and Electricity of EME of Coal or Rock. *Journal of Mining Science*, 2010,46(4):367-374,(SCI)
- (7) Enyuan Wang, Xueqiu He, Jianping Wei, Baisheng Nie and Dazhao Song. Electromagnetic emission graded warning model and its applications against coal rock dynamic collapses. *International Journal of Rock Mechanics and Mining Sciences*, 2011,48(4):556-564(SCI)
- (8) Xueqiu He, Wenxue Chen, Baisheng Nie, Hani Mitri. Electromagnetic emission theory and its application to dynamic phenomena in coal-rock. *International Journal of Rock Mechanics and Mining Sciences*, 2011,48(8): 1352 - 1358(SCI)
- (9) WANG En-Yuan; HE Xue-Qiu; DOU Ling-Ming; ZHOU Shi-Ning; NIE Bai-Sheng. Electromagnetic radiation characteristics of coal and rocks during excavation in coal mine and their application, *Chinese Journal of Geophysics*, 2005, 48(1): 216-221(SCI)
- (10) Baisheng Nie, Xueqiu He, Xiangchun Li, et al. Meso-structures Evolution Rules of Coal Fracture with the Computerized Tomography Scanning Method. In: Fifth International Conference on Engineering Failure Analysis, The Hague, The Netherlands, 1-4 July 2012.
- (11) Baisheng Nie, Xiangchun Li, Chao Wang, et al. Simulation calculation of interaction energy between gas molecules and coal macromolecule. In: International Conference for Mesoscopic Methods in Engineering and Science, Taipei, Taiwan, 23-27 July
- (12) NIE Baisheng, Wenxue Chen, Xiangchun Li, et al. Effect of Mesoscale Fracture during the Uniaxial Compression Process of Coal Containing Gas with CT Scanning Method- An Experimental Approach. In: the 46th US Rock Mechanics / Geomechanics Symposium, Chicago, America, 24-17 June 2012
- (13) NIE Baisheng, Hu Weixi. Investigations of Evolutionary Game between Individual Safety Behaviors and Stimulus Mechanism. 1st International Symposium on Behavior-based Safety and Safety Management. 2011: 419~423. (EI)
- (14) Bai-sheng Nie, Ru-Ming Zhang, Xue-Qiu He, Xiang-Chun Li, et al. Potential Applications of Foam Ceramics in Gas Explosion Prevention. *Advanced Materials Research*. 284-286 2011:1330-1334. (EI)
- (15) NIE Baisheng, Wang Hui, et al. Numerical investigation of the flow field inside and outside high-pressure abrasive water jet nozzle. In: First International Symposium on

Mine Safety Science and Engineering 2011: 1228-1235.(EI)

- (16) Bai-sheng NIE, Wen-xue WANG, Long-kang Kang, et al. Internet of Things-Based Positioning of Coalmine Personnel and Monitoring of Emergency state[C]. 2011 Second International Conference on Digital Manufacturing &Automation. 2011:657-660 (EI,ISTP)
- (17) NIE Baisheng, et al, Design for Safety Management System of Coal preparation Plant. First International Symposium on Mine Safety Science and Engineering, 2011 (B):1521-1529.(EI)
- (18) NIE Baisheng, et al. Research on unsafe behavior of miners based on the utility theory[C]. In: 1st International Symposium on Behavior-based Safety and Safety Management.2011: 553-555. (EI)
- (19) Bai-Sheng Nie, Ming Zhang, Jun-Qing Meng, et al. Characteristic Analysis of Metal Trough Faces Cut by Pre-Mixed Abrasive Waterjet. Applied Mechanics and Materials, 2011, Vol.63-64:740-744 (EI)
- (20) Bai-Sheng Nie, Peng-Fei Zhao, Jian-Hua Guo, et al. Fuzzy comprehensive evaluation of coal mine safety investment structure based on the M(1,2,3) model. Energy Procedia, Volume 16, Part A, 2012, Pages 592–597
- (21) Nie Baisheng, Duan Sanming. Essence of coal absorbing gas. Journal of Taiyuan University of Technology, 1998,29(4): 417-421
- (22) Nie Baisheng, Wang Enyuan, Guo Yongyi et al. Mathematical Model for Gas Diffusion through Coal Particles. Journal of Liaoning Technical University, 1999,18(6): 582-585
- (23) Nie Baisheng, He Xueqiu, Wang Enyuan et al. Noncontact Predicting Coal and Gas Outbursts Using Electromagnetic Radiation. Coal Mine Safety, 2000(2): 41-43
- (24) Nie Baisheng, He Xueqiu, Wang Enyuan et al. Surface Free Energy of Coal and Its Calculation. Journal of Taiyuan University of Technology, 2000,31(4):346-348
- (25) Nie Baisheng, He Xueqiu, Wang Enyuan et al. Preliminary Experimental Study of Electromagnetic Emission (EME) Phenomena during the Deforming and Fracturing of Coal Body. Coal Mine Safety, 2000,31(4): 38-41
- (26) Nie Baisheng, He Xueqiu, Wang Enyuan. Diffusion Mode of Methane Gas in Coal Pores. Mining Safety & Environmental Protection, 2000,27(5):14-16
- (27) Nie Baisheng, He Xueqiu, Wang Enyuan et al. Mechanism and Modes of Gas Diffusion in Coal Seams. China Safety Science Journal, 2000,10(5):24-28
- (28) Bai-sheng Nie, Xue-qiu He, En-yuan Wang et al. Macro- and Micro-Analysis of Effect of Electromagnetic Field on Coal Bed Methane Adsorption in Coal, First Mine Environment and Ventilation Symposium, India, 2000.10.11-12
- (29) Nie Baisheng, Zhang Li, Ma Wenfang. Diffusion Micro-mechanism of Coal Bed

- Methane in Coal Pores. *Coal Geology & Exploration*, 2000,28(6):20-22
- (30) Nie Baisheng, He Xueqiu, Wang Enyuan et al. Prediction of Coal or Rock Outburst by EME Method. *Journal of Taiyuan University of Technology*, 2000, 31(6):609-611
- (31) Nie Baisheng, Guo Yongyi, Wu Shiyue et al. Gas Diffusion through Coal Particles and Its Analytical Solution. *Journal of China University of Mining & Technology*, 2001, 30(1):19-22
- (32) Nie Baisheng, He Xueqiu, Wang Enyuan, et al. Study on De-noising EMR Signals with Wavelet Transform. *Proceedings in Mining Science and Safety Technology*, Jiaozuo, 2002.04:498-501;
- (33) Nie Baisheng, He Xueqiu, Wang Enyuan, etc. Experimental Study on EMR during the Shearing Process of Coal. 2002 International proceedings of safety science and technology, Tai'an, 2002.10:492-496
- (34) Nie Baisheng, He Xueqiu, Wang Enyuan, et al. Study on Electromagnetic Radiation and Acoustic Emission in Shearing Process of Coal. *Journal of China University of Mining & Technology*, 2002,32(6):609-611. 6
- (35) Nie Baisheng, He Xueqiu, Wang Enyuan, Liu Zhentang, Sa Zhanyou. Present Situation and Progress Trend of Prediction Technology of Coal and Gas Outburst. *China Safety Science Journal*, 2003,13(6):40-43; 32
- (36) Nie Baisheng, He Xueqiu, Wang Enyuan, et al. Electromagnetic Radiation Technology for Forecasting Dynamic Disasters of Coal and Rock and Its Applications. *Acta Geoscientica Sinica*, 2003, 24(Sup): 216-220
- (37) Nie Baisheng, He Xueqiu, Sun Jiping, Wang Enyuan, et al. Experimental Study on Effect of Gas Flow on the Spectrum of Electromagnetic Radiation. *Journal of University of Science and Technology Beijing*, 2003, 25(6): 510~514
- (38) Nie Baisheng, He Xueqiu, Wang Enyuan. Researches on Damage Mechanics Model of Coupled Stress & Electricity of Coal or Rock Under Load. *Geology and Prospecting*, 2003, 39 (supplement): 60-63
- (39) Nie Baisheng, He Xueqiu, Wang Enyuan, etc. Experimental researches on EMR of concrete under the uniaxial compression. INTERNATIONAL CONFERENCE ICACS 2003, 2004, Beijing-Xuzhou-Shanghai, China: 534-539
- (40) Nie Baisheng, He Xueqiu, Wang Enyuan, Zhang Li. Microcosmic mechanism of coal absorbing water. *Journal of China University of Mining & Technology*, 2004, 33(4): 379-383
- (41) Nie Baisheng, He Xueqiu, Wang Enyuan, Zhang Li. Research on the Mechanisms of the Influence of Electromagnetic Field on Coalbed Methane Adsorption. *Natural Gas*

Industry, 2004,24(10): 32-34

- (42) Nie Baisheng, He Xueqiu, Wang Enyuan, Liu Zhentang, Dou Linming, Zhang Jinfeng. Noncontact electromagnetic radiation detection system of coal or rock dynamic disasters and its application. Chinese Journal of Radio Science, 2004, 19 (supplement): 144-148
- (43) NIE Baisheng, HE Xueqiu, WANG Enyuan, ZHANG Jinfeng, XUE Erlong. Evaluation of Stress State in Mine Workface with the Electromagnetic Radiation Technology. In: PROGRESS IN SAFETY SCIENCE AND TECHNOLOGY IV, 2004 International Symposium on Safety Science and Technology, Shanghai, China, 2004:2379-2382
- (44) NIE Baisheng, HE Xueqiu, WANG Enyuan, ZHANG Li, FENG Zhihua, XUE Erlong. The effect of power sound wave on storage and motion of coalbed methane. Coal Geology & Exploration, 2004, 32(6): 23-26
- (45) NIE Baisheng, HE Xueqiu, LI Gang, ZHAI Shengrui, LI Xiangchun. Research on Neural Network Predicting Method of Electromagnetic Emission Signal of Coal or Rock. In: 2006 International Colloquium on Safety Science and Technology, eds. Chen Baozhi, Li gang, Shenyang, 2006.9: 211-215
- (46) Nie Baisheng, He Xueqiu, He Jun, Zhai Shengrui, Xue Erlong. Research on Electromagnetic Radiation Monitoring Technology of the Stress State on Work Face of Mine. Proceedings of the Nineth National Rock Mechanics and Engineering Conference, editor-in-chief, Tang Chun'an, Beijing, Science Press, 2006: 244-248
- (47) Nie Baisheng, Zhang Jinfeng, Hu Tiezhu, et al. Setting undergraduate experimental courses of safety engineering discipline. Journal of Safety and Environment, 2006, 6(supplement): 14-16
- (48) Nie Baisheng, He Xueqiu, He Jun, Zhai Shengrui. Research on Removing Noise of Electromagnetic Emission Signals with Wavelet Transform. Journal of Taiyuan University of Technology, 2006, 37(5): 557-560
- (49) Nie Baisheng, Zhang Jinfeng, Xie Hong, Li Gang. Research on the technology of deep borehole pre-cracking blasting of gassy coal seam. Journal of Northeast University, 2006, 27(s1): 148-151
- (50) Nie Baisheng, Zhai Shengrui, Liu Wenbo, Gao Hong. Research on electric magnetic radiation features of coal and rock failure in Chengzhuang Mine and application. Coal Science and Technology, 2007, 35(2): 58-61
- (51) Nie Baisheng, He Xueqiu, Feng Zhihua, Zhang Jinfeng. Application of magnetized water in coal seam water injection. Journal of Liaoning Technical University, 2007, 26(1): 1-3
- (52) NIE Baisheng, HE Xueqiu, LI Xiangchun. Research on Mechanism of Gas Seepage in Coal under the Action of Electromagnetic Field. In: Jing guoxun, Zhou Aitao GAO Jianliang and Gou Panfeng eds. Proceedings of the 2007' International Symposium on

Safety Science and Technology, April 16-19, 2007, Jiaozuo, Henan, China, Beijing: Science Press. 1304-1307

- (53) NIE Baisheng, HE Xueqiu, LI Xiangchun, GAO HONG. Research on Attenuation Characteristic of Sound Wave in Coal or Rock Body. *Journal of Coal Science & Engineering (in English)*, 2007,13(2): 154-158
- (54) Nie Baisheng, He Xueqiu, Wang Enyuan, Li Gang, Liu Wenbo. Coupled Stress-Electricity Model and Its Parameters Computation Method of Coal or Rock. *Journal of China University of Mining and Technology*, 2007, 36(4): 505-508
- (55) NIE Bai-sheng, HE Xue-qiu, ZHU Chen-wei & MENG Jun-qing. Discussion on Micro-Mechanism of Water and Coal Surface. In: *Proceedings of the 12th International Symposium on Water-Rock Interaction*, Kunming, China, 2007:361-365
- (56) Nie Baisheng, Gong Weili, Lan Richang, et al. Experiment of premixed abrasive water jet cutting rock and its mechanism research. Edited by Tang Chun'an, Guo Shaanyun, *Proceedings of Academic Symposium on Underground Engineering and Rock Fractures*, Dalian, Dalian University of Technology Press, 2007: 345-350
- (57) Nie Baisheng, Wang Xiaojun, Gu Xiaomin, Zhu Chenwei. Discussion on the Plan of Cultivating Innovative Senior Talents in Safety Engineering. *The 19th Annual Conference of National Safety Engineering for Colleges and Universities*. Harbin, Harbin Institute of Technology Press, 2007
- (58) B.S. Nie, X.Q. He, W.X. Chen & F.B. Liu. Electromagnetic emission characteristics and mechanism of the deformation and fracture of coal. In: Meifeng Cai and Jin'an Wang eds. *International Young Scholar Symposium on Rock Mechanics 2008*, Taylor & Francis Group, 2008.4.28-4.30: 925-929
- (59) Nie Baisheng, He Xueqiu, Zhang Jinfeng, et al. The effect of foam ceramics on gas explosion flame propagation[J]. *Journal of Beijing Institute of Technology*, 2008, 28(7): 573-576.
- (60) Bai-sheng Nie, Min-yuan Cao, Cui Ding, Nan Ma. Analysis and Application on Time Series of Crisis Management. In: *Theory and Practice of Risk Analysis and Crisis Response*, 2008,10.8-9,Guangzhou, China :230-235
- (61) Bai-sheng NIE, Jun-qing MENG, and Zong-feng JI. Numerical Simulation on Flow Field of Pre-mixed Abrasive Water Jet Nozzle[C]. In: *ICSC'2008*, Beijing. 247-251
- (62) Bai-sheng Nie, HE Xue-qiu, LIU Fang-bin, ZHU Chen-wei, WANG Ping. Chaotic characteristics of electromagnetic emission signals during deformation and fracture of coal. *Mining Science and Technology*, 2009,19(2):189-193
- (63) NIE Bai-sheng , HE Xue-qiu, LI Xiang-chun, LIU Fang-bin. Experimental study on the law of gas flow in coal body under action of true three dimension stress. In: *International Symposium on Prevention and Control of Gas Disaster in Coal Mine 2009*. Chongqing, 2009.
- (64) Baisheng Nie, Xiangchun Li, Junqing Meng, Chenwei Zhu. Experiment and its

- mechanism of improving the permeability of coal seam with long-hole pre-splitting blasting technology. In: Third International Conference on New Development in Rock Mechanics and Engineering 2009. China, Sanya, 2009.
- (65) NIE Bai-sheng, MENG Jun-qing, JI Zong-feng. Numerical Simulation Research of Liquid-solid Two-phase Flow in Abrasive Water Jet Nozzle. *Journal of Beijing Institute of Technology*, 2009, 18 (2): 157-161
- (66) Nie Bai-sheng, Meng Jun-qing, Ji Zong-feng and Li Xiang-chun. The Cutting Affects and Surface Topography Analyses of Pre-mixed and Rear-mixed Abrasive Water Jet. In: 9th Pacific Rim International Conference on Water Jetting Technology, 2009.11.
- (67) Bai-sheng, Nie; Xue-qiu, He; Chen-wei, Zhu. Study on mechanical property and electromagnetic emission during the fracture process of combined coal-rock. *Procedia Earth and Planetary Science*, v 1, n 1, p 281-287, September 2009
- (68) NIE Baisheng, CHEN Wenxue, HE Xueqiu, LI Xiangchun, JIA Chuan, YANG Chunli. Experimental investigations on meso-structure deformation of coal-rock under uniaxial compression with ct scanning method. In: G. C. Sih, C. K. Chao(eds). MESO2010-Multiscaling of Synthetic and Natural Sysytem with Self-Adaptive Capability. Taiwan: National Taiwan University of Science and Technology. 2010:109-112.
- (69) Nie Bai-sheng, Zhai Sheng-rui, Li Xiang-chun, Ma Nan & Zhang Ru-ming. Experiments on Softening Hard Rock in Mine by Chemical Method[C]. In: P. Birkle & I.S. Torres-Alvarado (eds.) WATER-ROCK INTERACTION – Proceedings of the 13th International Conference on Water-Rock Interaction, Guanajuato, Mexico, 16–20 August 2010, CRC Press, Taylor & Francis Group.
- (70) NIE Baisheng, ZHAI Shengrui, ZHANG Ruming, JIA Chuan, ZHANG Jufeng. Measurement and Numerical Simulation of the Stress Relaxation Zone on the Roadway Face in Coal Mine[C]. In: Proceedings of the 5th International Symposium on In-situ Rock Stress, Furen Xie ed. Beijing, China, AUG. 25-27, 2010:481-484
- (71) NIE Baisheng, Wang Hui, et al. Numerical investigation of the flow field inside and outside high-pressure abrasive water jet nozzle. In: First International Symposium on Mine Safety Science and Engineering 2011: 1228-1235.(EI)
- (72) Bai-sheng NIE, Wen-xue Chen, Long Kang, et al. Internet of Things-Based Positioning of Coalmine Personnel and Monitoring of Emergency state[C]. 2011 Second International Conference on Digital Manufacturing &Automation. 2011:657-660 (EI, ISTP)
- (73) NIE Baisheng, et al, Design for Safety Management System of Coal preparation Plant. First International Symposium on Mine Safety Science and Engineering,2011 (B):1521-1529.(EI)
- (74) NIE Baisheng, et al. Research on unsafe behavior of miners based on the utility theory[C]. In: 1st International Symposium on Behavior-based Safety and Safety Management.2011: 553-555. (EI)
- (75) Bai-Sheng Nie, Ming Zhang, Jun-Qing Meng, et al. Characteristic Analysis of Metal Trough Faces Cut by Pre-Mixed Abrasive Waterjet. *Applied Mechanics and Materials*,

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