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## PROMOTIONAL QUESTIONNAIRE – EDITORIAL

World Scientific is proud to be associated with the publication of your book. In order to promote your book effectively, we need your help to provide us with some pertinent information on the special features of your book.

The write-up will be featured in our promotional catalogues, flyers and website. It will also be used in the preparation of a blurb for the back cover. This information will be read by bookstore buyers and potential readers of your book.

Your book is very important to us, and no one is in a better position to inform the reader about the book than you. Please take the time to complete this questionnaire carefully.

Some sample write-ups have been included with this package (Appendix B) so that you can take a look at some examples of what we might be looking for.

The completed questionnaire should be emailed (preferred), posted or faxed back to us at any of the above addresses **at least 6 months before your manuscript submission.**

Thank you for your cooperation.

### 1. Basic Book Details

a) Main Title:

**QUANTITATIVE GEOCHEMISTRY**

b) Subtitle (if any):

c) *For proceedings*: date and venue of conference:

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d) No. of pages (approx.):

250
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e) Manuscript submission date (MM/YY or DD/MM/YY):

04/2006 to 06/2006
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f) Edition:

First
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## 2. Author Information

a) Author(s)/Editor(s)\* with Affiliation(s) – exactly as to be printed in book:

*\*Please delete where appropriate.*

Haibo Zou University of California, Los Angeles, USA
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b) Biographical Information:

Please provide brief biographical information about the author(s)/editor(s).<sup>\*</sup> Include important academic posts held, prizes/awards received, professional memberships, and other relevant professional activities, such as association with journals, etc. For review volumes and proceedings, please be sure to highlight any renowned contributors.

*\*Please delete where appropriate.*

After receiving his PhD from the Florida State University in 1999, Haibo Zou became a National Science Foundation Postdoctoral Research Fellow for two years, and is currently a research scientist at the Department of Earth and Space Sciences, University of California, Los Angeles. His research interests include trace element and isotope geochemistry, quantitative modeling, volcanology, and mantle and crust geochemistry. He serves as an editorial board member of <i>Chemical Geology</i> .
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### 3. Contents

Please include the detailed **table of contents** for your book. Use draft versions if the final text is not available. This material provides a good overview to readers of what your book is about, and will be included in any promotional catalogues and flyers, as well as on our website.

Batch Melting Model; Fractional Melting Model; Dynamic Melting Model; Open-system Melting Model; Uranium-series Disequilibrium Modeling; Crystallization and Mixing; Inverse Modeling of Earth Processes; Analytical Error Propagation and Analysis; Least Squares with Independent or Correlated Errors; Mass Spectrometry and Mass Fractionation; Single-spike and Double-spike Isotope Dilution Theory and Optimization; Lead (Pb) Isotope Modeling

### 4. Book Description

a) Describe your book (in 150-200 words) as follows:

- (i) Please explain why the book is important in the field.
- (ii) Summarize the scope of the book.
- (iii) In point form, list down 3 to 4 key selling points of the book. Consider its distinctive features and how it differs from competing titles; e.g. the unique treatment of certain topics, contributions from important authors (for multi-author books), the extensive use of diagrams/graphics, etc.
- (iv) For new and revised editions, please describe any new material/chapters.
- (v) Highlight any prominent editors/authors/contributors.

*Note: Please do not include the contents of the book (from Part 3) here.*

Modern geochemistry possesses not only the vigor of geology and chemistry but also the rigor of mathematics. This book presents quantitative treatments of a wide range of fundamental problems related to geochemistry and geology. It shows that trace elements, isotopes, and equations are integrative tools in modern geochemistry to study various Earth processes. In many chapters, simple models are presented first, and more parameters are gradually added so that the sophisticated models can be perceived as natural outgrowths of simple ones. This book may help scientists and graduate students in Earth Sciences improve their capacity to understand, apply, criticize, and appreciate available models and possibly to develop their own models. A better understanding of models provides penetrating insights into fundamental principles in geochemistry, geology, analytical chemistry, and mass spectrometry as well as any other fields in natural sciences.

#### Key Features

- Involve trace elements, short-lived isotopes, long-lived isotopes, and stable isotopes
- In-depth problem-oriented approach to geochemical modeling
- Detailed formulation and derivation of equations, together with plenty of step-by-step examples
- Include some unpublished original models

b) Type of book:

Please select the appropriate classification for your book (  ):

General level book

**Textbook**

Study Guide

- Handbook
   
  Monograph
   
  **Lecture Notes**  
 Review Volume
   
  Reprint Volume
   
  Proceedings Volume  
 Other, please specify: \_\_\_\_\_

- c) List down the keywords (5 –10) for the book. This will be used for search engines in online bookshops.

Geochemistry; Partial melting; Isotopes; Trace elements; Mass spectrometry; Mathematical modeling; Differential equations; Least squares; Error analysis;
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## 5. Readership

- a) What is the primary market for the book? Please identify by profession or job title and setting (academic, industry, etc.).
- b) Please identify any secondary market and indicate the target audience(s).
- c) If the book is suitable for use in a course or as a textbook, please indicate the appropriate level (graduate, undergraduate, etc.).

Scientists in geochemistry, geology, geophysics, material sciences, analytical chemistry, mathematical modeling; Graduate students in geochemistry and geology
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## 6. Subject Classification

To focus our marketing effectively and classify your book with related titles, please select from the subject classifications given in Appendix A, for

- a) the main classification(s) of your book in order of importance

Rank	Subject ( <i>one subject per box</i> )
1	Environmental Science
2	Mathematics
3	Chemistry

- b) the secondary classification(s) of your book:

Subject ( <i>one subject per box</i> )
1. Geology/Earth Studies/Earth Science
2. Mathematical Modeling
3. Analytical Chemistry

***Thank you for completing this questionnaire***

## Appendix A – List of Subject Classifications

### **Agricultural Sciences**

- Animal Science
- Crop Science
- Fishery
- Forestry

### **Architecture/Building Management**

- Architecture
- Building Management

### **Arts & Social Science**

- Anthropology
- Biography
- Cultural Studies
- Education
- Human Resource
- International Relations/  
Policy Studies/Political Science
- Literature
- Maritime Studies
- Nature
- Philosophy
- Social Issues/Sociology
- Transportation

### **Asian Studies**

- Asian Business/Management
- Asian Culture/Politics/Society
- Asian History
- Asian Literary Studies/ Literature

### **Business and Management**

- Decision Sciences
- Innovation/Technology/  
Knowledge/Information  
Management
- Entrepreneurship
- Operations Management/  
Operations Research/  
Management Sciences
- International Trade/Business
- Organizational Behavior
- Others

### **Chemistry**

- Analytical Chemistry
- Biological Chemistry
- Catalytic Chemistry
- Computational Chemistry
- Electrochemistry
- Emulsion/Microemulsion  
Chemistry
- Environmental/Atmospheric  
Chemistry
- Fullerene Chemistry
- Industrial Chemistry
- Inorganic Chemistry
- Nuclear Chemistry
- Organic Chemistry
- Photochemistry
- Physical Chemistry
- Polymer Chemistry
- Solid State Chemistry
- Supramolecular Chemistry
- Surface/Interface Chemistry
- Theoretical Chemistry/  
Quantum Chemistry
- General

### **Computer Science**

- Artificial Intelligence/  
Machine Learning
- Databases/Information  
Sciences
- Fuzzy Logic
- Machine Perception/  
Computer Vision
- Neural Networks/Networking
- Pattern Recognition/  
Image Analysis
- Robotics & Automated Systems

- Software Engineering/  
Programming
- Supercomputing/  
Parallel Computing
- Theoretical Computer Science
- General

### **Economics & Finance**

- Asian Economies/International  
Economics/Developmental  
Economics
- Health Economics
- Money & Banking/Corporate  
Finance/Investments/Financial  
Markets & Institutions
- Computational Methods for  
Economics & Finance/Statistics  
for Economics & Finance
- History of Economic Thought/  
Economic History
- Political Economy
- General Economics/  
Macroeconomics/  
Microeconomics/  
Industrial Organization
- International Finance
- Mathematical Economics/  
Modeling/Game Theory/  
Econometrics
- Mathematical Finance

### **Engineering**

- Aerospace Engineering
- Earthquake Engineering
- Mechanical Engineering
- Biomedical Engineering/  
Bioengineering
- Electrical & Electronic  
Engineering
- Ocean Engineering/  
Coastal Engineering
- Chemical Engineering
- Engineering Mechanics
- Systems Engineering
- Civil Engineering
- Industrial Engineering
- General
- Computer Engineering
- Materials Engineering

### **Environmental Science**

- Biological Conservation &  
Preservation
- Environmental Engineering
- Hydrology
- Climatology/Meteorology
- Environmental Management &  
Planning
- Natural Resource
- Energy Studies/Research
- Environmental Technology
- Oceanography
- Environmental Economics
- **Geology/Earth Studies/  
Earth Science**
- Pollution
- Environmental Education
- Waste Management

### **General**

- Chinese Publications
- General

### **Healthcare**

- Disease
- Nutrition
- Psychology
- Food Processing
- Occupational & Community  
Medicine
- Public Health
- Food Science & Technology
- Physiotherapy
- Social Medicine
- Nursing

### **History of Science**

- History of Science

**Life Sciences/Biology**

- Animal/Plant Physiology
- Biochemistry/  
Biological Chemistry
- Bioinformatics/Biocomputing/  
Computational Biology/  
Proteomics/Systems Biology
- Biomathematics
- Biophysics
- Biotechnology
- Botany
- Cell/Molecular Biology/  
Structural Biology
- Ecology
- Evolution Biology
- Fish & Marine Biology
- Genetics/Genomics
- Human Biology/Biological  
Anthropology/Primatology
- Natural Product Research
- Neurobiology
- Tissue Engineering/Stem Cells
- Zoology
- General

**Materials Science**

- Amorphous Materials
- Ceramics
- Electron Microscopy,  
Scanning, Tunnelling
- Glasses, Insulators &  
Optical Materials
- Liquid Crystals &  
Crystallography
- Metallography
- Microelectronics
- New Materials
- Polymers
- Semiconductors &  
Related Areas
- Spectroscopy & Other  
Analytical Techniques
- Superconductivity &  
Magnetic Materials
- Surface Science
- Tribology
- General

**Mathematics**

- Algebra & Number Theory
- Analysis & Differential Equations
- Approximation Theory
- Combinatorics & Graph Theory
- Control Theory
- Fluid Mechanics
- Fuzzy Mathematics
- Geometry & Topology
- Logic
- Mathematical Biology
- **Mathematical Modeling**
- Mathematical Physics
- Mechanics
- Numerical & Computational  
Mathematics
- Optimization
- Probability & Statistics
- Stochastic
- General

**Medicine**

- Alternative Medicine/  
Chinese Medicine
- Anaesthesia
- Anatomy/Neuroanatomy
- Aviation Medicine/  
Aeromedical Science
- Cardiology
- Clinical Biochemistry
- Dentistry
- Dermatology
- Ear, Nose & Throat
- Embryology
- Endocrinology
- Forensic Medicine
- Gastroenterology
- General Surgery
- Geriatric Medicine/  
Gerontology
- Haematology
- HIV & AIDS Research
- Human Physiology
- Immunology
- Infectious Diseases
- Internal Medicine
- Microbiology/Virology
- Nephrology/Renal Medicine
- Neurology/Neuroscience
- Nuclear Medicine/Radiology/  
Medical Imaging
- Obstetrics & Gynaecology
- Oncology/Cancer Research
- Ophthalmology

- Orthopaedics/Biomechanics/  
Orthopaedic Surgery
- Paediatrics
- Pathology
- Pharmacology
- Psychiatry
- Respiratory Medicine/  
Pulmonary Medicine
- Rheumatology
- Toxicology
- Tropical Medicine & Hygiene
- Urology
- Vascular Medicine
- General

### **Nanotechnology & Nanoscience**

- Atom Manipulation
- Electron States in  
Nanoscale Systems
- Fullerenes
- Magnetic Properties of  
Nanostructures
- MEMS/NEMS (Micro- and Nano-  
Electromechanical Systems)
- Molecular Mechanics &  
Robotics
- Nanoelectronics
- Nanofabrication
- Nanoinstrumentation &  
Nanocommunication
- Nanomaterials & Nanostructures
- Nanomedicine & Nanobiology
- Nano-Optics
- Picotechnology
- Single Molecule Kinetics
- General

### **Nonlinear Science, Chaos & Dynamical System**

- Complex Systems

### **Physics**

- Accelerator Physics/  
Experimental Physics
- Applied Physics
- Astrophysics/Astronomy/  
Cosmology
- Atomic Physics
- Classical Mechanics/  
Electrodynamics
- Computational Physics
- Condensed Matter Physics/  
Solid State Physics
- General Physics
- Geophysics
- High Energy Physics/  
Particle Physics
- High Temperature  
Superconductivity
- Laser Physics
- Liquid Crystal
- Low Temperature Physics
- Molecular Physics
- Nuclear Physics
- Optics
- Plasma Physics
- Quantum Physics/Quantum  
Mechanics/Quantum Information
- Semiconductors
- Statistical Physics
- Theoretical Physics
- Thermodynamics

### **Popular Science**

- Popular Science