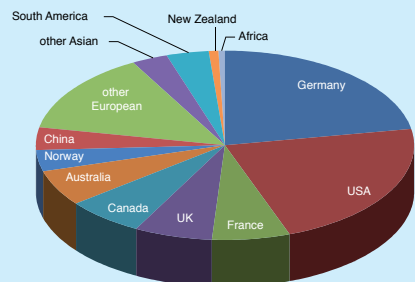


## GeoReM users worldwide



## More information in:

Vol. 35 - N° 4 p. 397-429

**GEOSTANDARDS and GEOANALYTICAL RESEARCH**

**Determination of Reference Values for NIST SRM 610-617 Glasses Following ISO Guidelines**

Klaus Peter Jochum (1), Ulrike Weis (1), Brigitte Stoll (1), Dmitry Kuzmin (1,2), Qichao Yang (1), Ingrid Raczek (1), Dorrit E. Jacob (3), Andreas Stracke (4, 5), Karin Birbaum (6), Daniel A. Frick (6), Delfe Günther (6) and Jacinta Enzweiler (7)

Chemical Geology 253 (2008) 50-53

Contents lists available at ScienceDirect

**Chemical Geology**

Journal homepage: [www.elsevier.com/locate/chemgeo](http://www.elsevier.com/locate/chemgeo)

Reference materials in geochemistry and environmental research and the GeoReM database

Klaus Peter Jochum\*, Uwe Nohl

Max-Planck-Institut für Chemie, Postfach 3060, Mainz, Germany

Vol. 35 - N° 4 p. 485-488

**GEOSTANDARDS and GEOANALYTICAL RESEARCH**

**Geostandards and Geoanalytical Research Bibliographic Review 2010**

Klaus Peter Jochum (1), Xiaohong Wang (2), Uwe Nohl (1), Steffen Schmidt (1), Beate Schwager (1), Brigitte Stoll (1), Qichao Yang (1) and Ulrike Weis (1)

(1) Max-Planck-Institute for Chemistry, P.O. Box 3060, 55020 Mainz, Germany  
(2) National Research Centre for Geoanalysis, Chinese Academy of Geological Sciences, 26 Baiwanzhuang Dajie, 100037 Beijing, China  
\* Corresponding author, e-mail: k.jochum@mpic.de

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**地球化学与环境样品分析标准物质和 GeoReM 数据库**

JOCHUM Klaus Peter<sup>1</sup>, 王晓红<sup>2</sup>  
(1. 德国马-普化学所, 美因兹 55128, 德国; 2. 国家地质实验测试中心, 北京 100037)



GeoReM Team  
(from left to right)



<http://georem.mpch-mainz.gwdg.de>

91500 zircon  
BCR-1 NIST SRM 987  
KL2-G JR-1

**GeoReM**  
**Geological Reference**  
**Materials**

is cross-linked with

**GEOROC**  
Geochemistry of Rocks  
of the Oceans and Continents

<http://georoc.mpch-mainz.gwdg.de>

**GeoReM**  
**Geological Reference**  
**Materials**

Database:

<http://georem.mpch-mainz.gwdg.de>



giant spicule

Max-Planck-Institut  
für Chemie  
Mainz, Germany  
email: [k.jochum@mpic.de](mailto:k.jochum@mpic.de)



MAX-PLANCK-INSTITUT  
FÜR CHEMIE



MAX-PLANCK-GESellschaft

## Six different search strategies are possible:

### Samples or Materials (published Values)

Ranges of published data (overview)  
List of analytical data and metadata

### Samples (GeoReM preferred Values)

Reference values for frequently used reference materials

### Chemical Criteria

Search based on chemistry

### Chemical Criteria based on Bibliography

Chemical search by authors or publications

### Bibliography

Bibliographic search by author, by journal and by keywords

### Methods or Institutions

Lists of methods used in selected institutions  
Lists of institutions using certain techniques

### Send your data

Fast data input

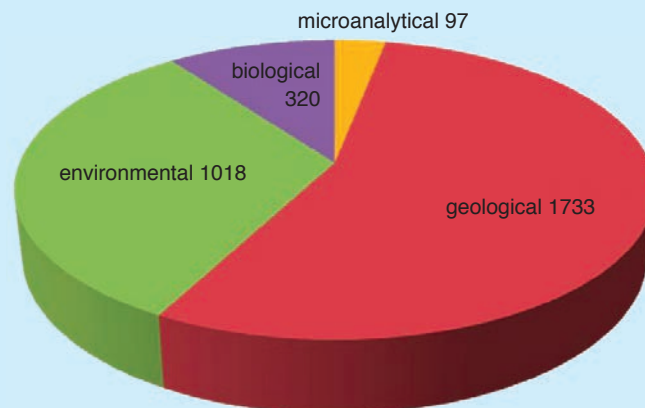
**GeoReM** is a Max Planck Institute database for reference materials of geological and environmental interest, such as rock powders, synthetic and natural glasses as well as mineral, isotopic, biological, river water and seawater reference materials.

**GeoReM** contains published analytical data and compilation values (major and trace element concentrations, radiogenic and stable isotope ratios).

**GeoReM** contains all important metadata about the analytical values such as uncertainty, analytical method and laboratory. Sample information and references are also included.

**GeoReM** contains more than 2,550 reference materials, more than 28,600 analyses from more than 6,100 papers, and preferred analytical values (State:09/01/2012).

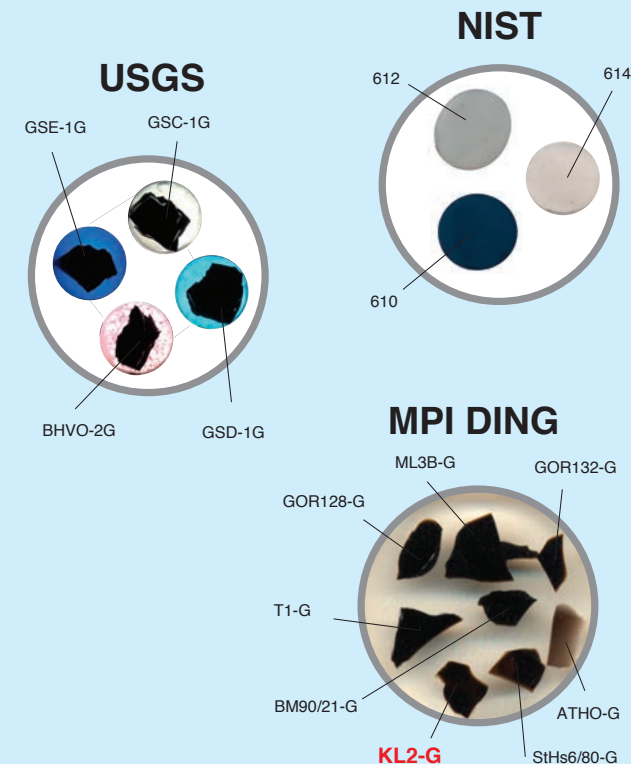
## Reference materials in GeoReM



## Most frequently requested reference materials of different categories

geological	microanalytical	mineral	environmental	biological
BHVO-2	NIST SRM610	91500 Zircon	NASS-5	JCp-1
BCR-2	NIST SRM612		SLRS-4	
BHVO-1	BCR-2G		MESS-3	
BIR-1	KL-2G		PACS-2	
BCR-1	BHVO-2G		NIST SRM2711	
AGV-1	ATHO-G		LKSD-1	

## Microanalytical reference materials



## Overview of Analytical Data

U	0.3 - 1.1 µg/g 34 values ( compiled: 0.548 - 0.55 µg/g , 2 values )
V	206 - 465 µg/g 14 values ( compiled: 309 - 370 µg/g , 2 values )
W	0.28 - 1.07 µg/g 12 values ( compiled: 0.37 µg/g )
Y	21 - 33.6 µg/g 34 values ( compiled: 25.4 - 26.8 µg/g , 2 values )
Yb	1.8 - 2.32 µg/g 37 values ( compiled: 2.1 - 2.13 µg/g , 2 values )
Zn	85 - 123 µg/g 11 values ( compiled: 110 - 112 µg/g , 2 values )
Zr	127 - 218 µg/g 39 values ( compiled: 152 - 159 µg/g , 2 values )
143Nd/144Nd	0.51295 ( compiled: 0.51295 )
176Hf/177Hf	0.283109 ( compiled: 0.283109 )
206Pb/204Pb	18.974 - 19.2 11 values ( compiled: 19.03 )
207Pb/204Pb	15.581 - 15.78 11 values ( compiled: 15.632 )
207Pb/206Pb	0.8189 - 0.8248 19 values ( compiled: 0.82146 )
208Pb/204Pb	38.453 - 38.61 11 values ( compiled: 38.524 )
208Pb/206Pb	2.016 - 2.0278 19 values ( compiled: 2.0243 )
87Sr/86Sr	0.703517 ( compiled: 0.703517 )
d17O	4.31 ‰VSMOW ( compiled: 4.31 ‰VSMOW )
d18O	8.63 ‰VSMOW ( compiled: 8.63 ‰VSMOW )
d44/40Ca	-1.18 ‰JAPSO ( 0.67 ‰NIST915a ) ( compiled: 0.67 ‰NIST915a )
d44Ca/40Ca	0.65 - 0.73 ‰NIST915a 3 values
d7Li	4.1 ‰LSVEC ( compiled: 4.1 ‰NIST8545 )