

***THE IRAQI  
PALYGORSKITES***

**THE IRAQI PLYGORSKITES**  
**GEOLOGY, MINERALOGY,**  
**GEOCHEMISTRY, GENESIS**  
**AND INDUSTRIAL USES**

**PROCEEDINGS OF A SYMPOSIUM**  
**HELD MARCH 24 – 25, 1997**  
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## **The Iraqi Palygorskites**

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## **PREFACE of the 1<sup>st</sup> print**

Palygorskite is one of the widely distributed clay minerals in the sedimentary rocks and sediments of Iraq. Since 1975 the mineral was reported in almost all rock units of Late Cretaceous and younger ages. It is also a common clay mineral in recent soils and flood plain deposits of Mesopotamia.

The State Co. of Geological Survey and Mining carried out several exploration surveys in order to locate and investigate economic palygorskite deposits in Iraq. There is an increasing industrial demand for this mineral, especially as a drilling mud and as a filter aid. The company took the initiative in exploring various fields of industrial applications for palygorskite, while the mineralogy, geochemistry and genesis of palygorskite are frequently tackled in the postgraduate studies of the Iraqi universities.

The symposium on the Iraqi palygorskites, held in 1997, provided an excellent opportunity to present their work on this clay mineral. The papers presented at the symposium covered various aspects including detailed mineralogy, geochemistry, structural composition, genesis as well as industrial uses and applications.

The final task in this respect is the presentation of this proceeding volume. The efforts of the editor and contributors are gratefully acknowledged.

**Ra'ad M. Al-Jumaily**  
**Director General**



## **Editor's Preface of the 1<sup>st</sup> print**

The symposium on *The Iraqi Palygorskites* was held from March 24 – 25, 1997 in Baghdad. The symposium was sponsored by the University of Baghdad, College of Science.

A total of 20 papers were presented at the symposium. All authors of the full-length technical papers were invited to submit their papers for publication. This proceeding volume contains 17 papers selected from those submitted in the symposium.

The preparation of this volume would not have been possible without the assistance of all the authors, the support of Mr. Ra'ad M. Al-Jumaily (Director General of the State Co. of Geological Survey and Mining), the review of Dr. Sawsan H. Al-Haza'a and the effort of Mr. Ali H. Ali in the computer editing. I express my sincere thanks to all of them.

K. S. Al-Bassam  
Editor

State Co. of Geological Survey and Mining  
Baghdad, Iraq

December, 2000

## **Technical Editorial of the 2<sup>nd</sup> print**

The "Iraqi Palygorskites", first published in 2000, is reviewed and reprinted including the 17 published papers of the book, which are printed in this version in a uniform style, including letters type and size.

All figures in this reprint are reproduced using computer Corel DRAW programme. The size of the figures and lettering were unified as much as possible. When coloring is needed, international standards were used. However, the photographs in this print are the same as those in the first print. Unfortunately, the original negatives were not available to be enhanced. Nevertheless, the presented photographs are the best quality that can be achieved, using computer facilities in increasing or decreasing the brightness and forwarding light to each photograph.

Another improvement in this reprint, as it could be seen when compared with the first print, is the linguistic review, which was performed, when it was necessary. These amendments were performed usually with the agreement and under the supervision of the editor.

The last review included an update of the geological information, especially the age of geological formations and their names. The former case was amended depending on the data of Iraq Geological Survey, whereas the latter case was amended according to the IUGS and ICS standards.

**Varoujan K. Sissakian**  
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**December, 2012**

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# THE IRAQI PLYGORSKITES

## CONTENTS

### Part 1: Geology, Mineralogy, Geochemistry and Genesis

#### Distribution of Iraqi palygorskites in space and time

Khaldoun S. Al-Bassam ..... 1

#### Palygorskite in the Tayarat Formation (Upper Cretaceous), Well KH.6, Ansab, Southern Desert of Iraq

Mazin Y. Tamar-Agha and Safa A.F. Al-Janabi ..... 11

#### Palygorskite deposits of the Safra Beds (Maastrichtian) in the Ga'ara – Akashat area, Western Desert, Iraq

Khalid J. Aswad, Samir A. Hirmiz and Khaldoun S. Al-Bassam ..... 39

#### Origin and chemistry of palygorskite-bearing rocks (Middle Eocene) from northeast Iraq

Hisham Y. Dhannoun and Salim M.A. Al-Dabbagh ..... 57

#### Mineralogy, Geochemistry and rheological properties of a Middle Miocene palygorskite claystone from the Western Desert of Iraq

Khaldoun S. Al-Bassam, Sawsan H. Al-Haza'a and Mazin Y. Tamar-Agha ... 67

#### Palygorskite-rich claystone of Injana Formation (Late Miocene) in the Najaf – Razzaza area

Khaldoun S. Al-Bassam and Azhar P. Al-Baidari ..... 95

#### A new occurrence of palygorskite in the Nineva District

Abdul H. Al-Sayegh, D.N. Ojha and Khalid. J. Aswad ..... 113

#### Palygorskite-rich sandy claystone lenses of the Dibdibba Formation in the Kerbala – Najaf area, West Iraq

Arwa Sh. Taka, Moutaz A. Al-Dabbas and Bassam M. Al-Barri ..... 127

#### Palygorskite of the Zahra Formation (Pliocene – Pleistocene) in the Western and Southern Deserts of Iraq

Mazin Y. Tamar-Agha, Sawsan H. Al-Haza'a and Khaldoun S. Al-Bassam ..137



**Palygorskite in the Recent fluvio – lacustrine and deltaic sediments of Southern Mesopotamia**  
Adnan A.M. Aqrawi ..... 151

**Geochemistry of palygorskite deposits of Iraq: Genetic considerations**  
Khalidoun S. Al-Bassam, Sawsan H. Al-Haza'a and Mazin Y. Tamar-Agha ..159

**Part 2: Industrial Uses and Applications**

**The use of Iraqi palygorskite (attapulgitite) in oil-well drilling**  
Rafid S. Anton, Khalidoun S. Al-Bassam, Shallal N. Al-Dulaimi and Hisham A. Mousa ..... 199

**The use of Iraqi palygorskite (attapulgitite) in decolorizing paraffin wax**  
Najib H. Juma, Khalidoun S. Al-Bassam, Adai N. Dawood, Iman Nouri, Nada Matti and Sallama Ch. Rashid ..... 213

**The use of Iraqi palygorskites in the dehydration of hydraulic oil of electrical power stations**  
Khalidoun S. Al-Bassam, Munim R. Jafar and Abdul Wahab A. Al-Ajeel ... 219

**The use of Iraqi palygorskite-rich clays in decolorizing sun-flower oil**  
Abdul Wahab A. Al-Ajeel, Suad I. Hana, Khalidoun S. Al-Bassam and Malik Hussain ..... 227

**Crystallochemical and thermodynamic characterization of Nineva palygorskite as microporous absorbent**  
Khalid J. Aswad, Duraid A. Fat'hiy and Kanana M. Thabit ..... 237

**The use of Iraqi palygorskite-rich claystone from the Najaf – Razzaza area in pottery**  
Azhar P. Al-Baidari ..... 251