

**THE FUNDAMENTAL
PRINCIPLES
OF PETROLOGY,
FIRST EDITION**

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The fundamental principles of petrology, First edition by Ernst Weinschenk & Albert Jonannsen

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ERNST WEINSCHENK & ALBERT JONANNSEN

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THE FUNDAMENTAL PRINCIPLES OF PETROLOGY

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AUTHORIZED TRANSLATION

(FROM THE THIRD GERMAN EDITION)

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WITH 137 FIGURES AND 6 PLATES

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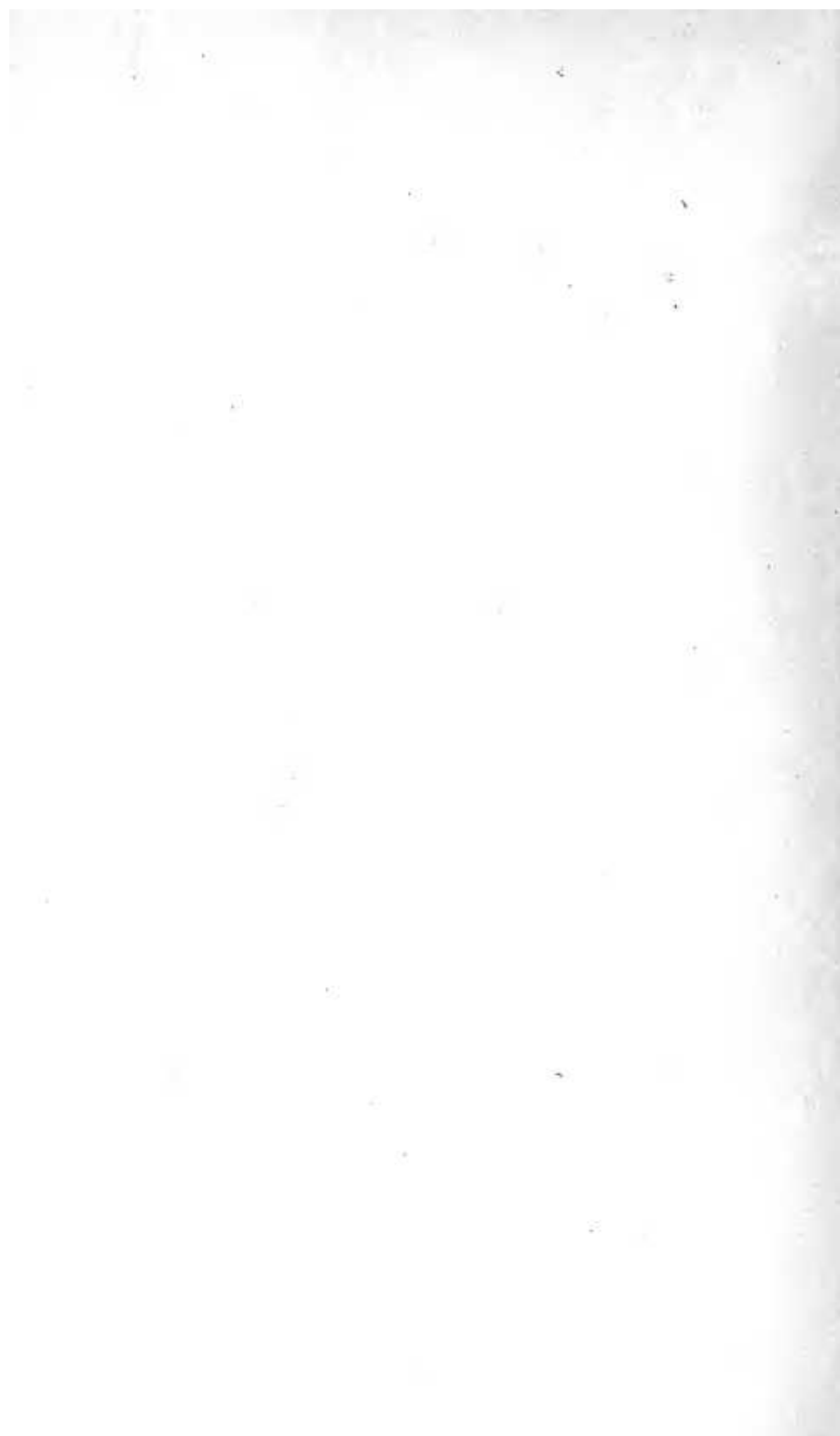
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To the Memory
of
Caroline Austin Duror
this Translation
is Dedicated



TRANSLATOR'S PREFACE

The need of a short presentation of the fundamental principles of petrology as applied to geology has suggested the translation of the first volume of Professor Weinschenk's *Grundzüge der Gesteinskunde*. Without thereby expressing his belief or disbelief in the views of the author, the translator has tried to adhere as closely as possible to the sense as well as to the mode of expression of the original. Only in the case of the Osann classification has any additional material been inserted. The rules for calculating analyses in this system are readily accessible to the German student but not to others, and in view of the growing use made of Osann's triangular diagrams by European geologists, the addition was thought justifiable. Owing to the uncertainty of shipments from Germany, it was impossible to obtain the original electrotypes of the illustrations, consequently the cuts in this translation were reproduced from the figures in the German volume, and are not quite so sharp as they otherwise would have been.

The translator is deeply indebted and very grateful to Dr. E. A. Stephenson for critically reading this manuscript and for various suggestions. He is also indebted to Miss Caroline A. Duror for carefully reading it and for pointing out certain ambiguous passages. The sad death of this brilliant and promising student permits the writer to express his appreciation only in the dedication of this translation to her memory.

ALBERT JOHANNSEN.

THE UNIVERSITY OF CHICAGO,
August 14, 1916.

