

国際周期表年

記念キャンペーンのご案内

ADVANCING
DISCOVERY

Nature: インタラクティブな周期表サイト

周期表からそれぞれの元素をクリックすると、ネイチャー・リサーチのエディターが選んだ論文や commentaries、ビデオなど、その元素にちなんだトピックをお届けします。

<https://go.nature.com/2tYyPv2>



Nature: 周期表特別コレクション

<https://go.nature.com/2IZqCBa>



Nature Chemistry: 関連文献のコレクション

<https://go.nature.com/2SSba9i>



Springer: 特設サイト

関連文献をフリーアクセスで提供。内容は2か月ごとに更新予定。

<http://bit.ly/2NSPGbF>



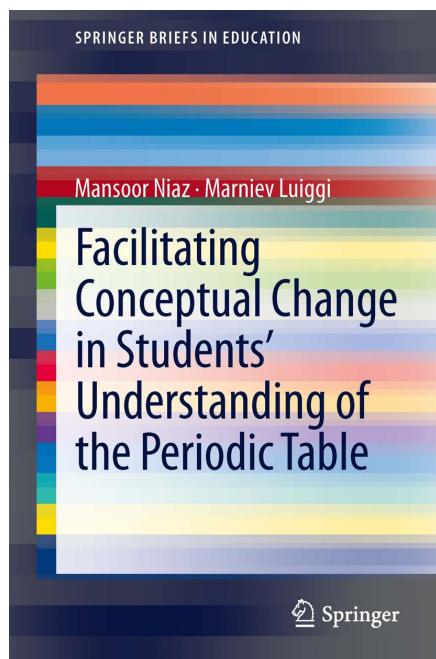
SpringerMaterials: 物性情報データベース

周期表から化合物を選択し、物性情報が調べられます。
無料個人トライアルを承ります。

materials.springer.com

<http://bit.ly/2SXCcMS>





2014, X, 49 p. 4 illus.

Printed book

Softcover

49,99 € | £44.99 | \$49.99

^[1]53,49 € (D) | 54,99 € (A) | CHF 67,07

eBook

41,64 € | £35.99 | \$39.99

^[2]41,64 € (D) | 41,64 € (A) | CHF 53,50

Available from your library or
springer.com/shop

MyCopy ^[3]

Printed eBook for just

€ | \$ 24.99

springer.com/mycopy

Mansoor Niaz, Marniev Luiggi

Facilitating Conceptual Change in Students' Understanding of the Periodic Table

Series: SpringerBriefs in Education

- Provides guiding principles for the teaching of the periodic table
- Gives examples of students' concept maps created as part of the teaching intervention
- Uses multiple data sources to validate results and recommendations

This book is about how students are taught the periodic table. It reviews aspects of the periodic table's development, using the history and philosophy of science. The teaching method presented in this book is ideal for teaching the subject in high school and at introductory university level. Chemistry students taught in this new, experimental way are compared with those taught in the traditional way and the author describes how tests found more conceptual responses from the experimental group than the control group. The historical aspects of importance to this teaching method are: the role of the Karlsruhe Congress of 1860; the accommodation of the chemical elements in the periodic table; prediction of elements that were discovered later; corrections of atomic weights; periodicity in the periodic table as a function of the atomic theory; and the accommodation of argon. The experimental group of students participated in various activities, including: discussion of various aspects related to the history and philosophy of science; construction of concept maps and their evaluation by the students; PowerPoint presentations; and interviews with volunteer students.

Order online at springer.com / or for the Americas call (toll free) 1-800-SPRINGER / or email us at: customerservice@springernature.com. / For outside the Americas call +49 (0) 6221-345-4301 / or email us at: customerservice@springernature.com.

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with [1] include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with [2] include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted. [3] No discount for MyCopy.

