

711
250/n

A Journal of

Zeitschrift für Naturforschung A

Physical Sciences

Founded 1946 in the Institutes
of the Max Planck Gesellschaft

Volume 69 Number 12
December 2014



Verlag der Zeitschrift für Naturforschung, Tübingen

<http://znaturforsch.com>

Original Communications

- Theoretical Calculations of Mechanical, Electronic, and Chemical Bonding in CaN_2 , SrN_2 , and BaN_2
L.-Q. ZHANG, Y. CHENG, Z.-W. NIU, C.-G. PIAO, and G.-F. JI 619
- Pyrene Fluorescence in Nanoaggregates Irradiated by IR Photons
H. JUNGCLAS, V. V. KOMAROV, A. M. POPOVA, and L. SCHMIDT 629
- The Ordered Network Structure and Prediction Summary for $M \geq 7$ Earthquakes in Xinjiang Region of China
K.-P. MEN and K. ZHAO 635
- Analytical Dependence of the Ignition Dynamics Parameters on the Low-Z Impurity Concentration
M. MAHDAVI and S. E. ABEDI 645
- Kinetics of the Elementary Act of Electrochemical Reactions at the Semiconductor–Electrolyte Solution Interface
S. KOVALENKO and V. SOLOVIEV 654
- The Relativistic Screened Coulomb plus Ringed-Shaped-Like Potential via Shape-Invariance Approach
A. N. IKOT, H. HASSANABADI, H. P. OBONG, and Y. CHAD-UMOREN 659
- First and Second-Phase Transitions of Gases at Iso-baric Process; Lennard–Jones (9,6) Gases with a Hard Core
A. MATSUMOTO 665
- Intense Isolated Ultrashort Attosecond Pulse Generation in a Multi-Cycle Three-Colour Laser Field
G.-T. ZHANG 673
- Mixed Convection Boundary Layer Stagnation-Point Flow of a Jeffery Fluid Past a Permeable Vertical Flat Plate
M. M. RAHMAN and I. POP 687
- Exact Solutions of Electro-Osmotic Flow of Generalized Second-Grade Fluid with Fractional Derivative in a Straight Pipe of Circular Cross Section
S. WANG, M. ZHAO, X. LI, X. CHEN, and Y. GE 697
- On the Numerical Solution of the Nonlinear Radiation Heat Transfer Problem in a Three-Dimensional Flow
A. MUSHTAQ, M. MUSTAFA, T. HAYAT, and A. ALSAEDI 705
- Magnetohydrodynamic Natural Convection Flow with Newtonian Heating and Mass Diffusion over an Infinite Plate that Applies Shear Stress to a Viscous Fluid
D. VIERU, CORINA FETECAU, CONSTANTIN FETECAU, and N. NIGAR 714
- Fundamental Solution via Invariant Approach for a Brain Tumor Model and its Extensions
A. G. JOHNPILLAI, F. M. MAHOMED, and S. ABBASBANDY 725
- Authors index 733