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**2008, 73, 1281–1298**

**Generalized Spin Bases for Quantum Chemistry and Quantum Information**

Maurice R. Kibler

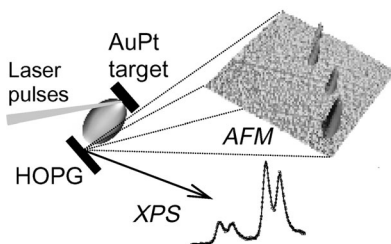
$$|\langle j\alpha;ra|j\beta;rb\rangle = \delta_{\alpha,\beta} \delta_{a,b} + \frac{1}{\sqrt{2j+1}}(1 - \delta_{a,b})$$

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**2008, 73, 1299–1313**

**Preparation of Au-Pt Nanostructures on Highly Oriented Pyrolytic Graphite Surfaces by Pulsed Laser Deposition and Their Characterization by XPS and AFM Methods**

Jan Plšek, Pavel Janda and Zdeněk Bastl

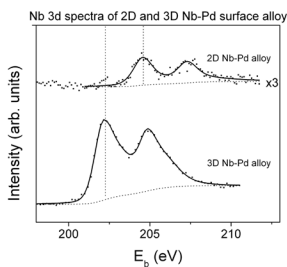


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**2008, 73, 1314–1326**

**Interaction of Niobium with Polycrystalline Palladium Surface. X-ray Photoemission Study**

Ivan Jirka and Zdeněk Bastl



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**2008, 73, 1327–1339**

**Analytic Energies and Wave Functions of Two-Dimensional Schrödinger Equation: Two-Dimensional Fourth-Order Polynomial Potential**

Vladimír Tichý and Lubomír Skála

$$H\psi = E\psi$$

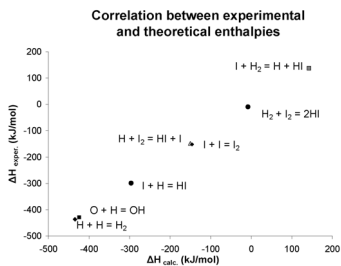
$$V = W_{40}x^4 + W_{04}y^4 + V_{31}x^3y + V_{13}xy^3 + V_{22}x^2y^2 + \dots$$

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2008, 73, 1340–1356

**Thermodynamic Data of Iodine Reactions Calculated by Quantum Chemistry. Training Set of Molecules**

Katarína Mečiarová, Laurent Cantrel and Ivan Černušák

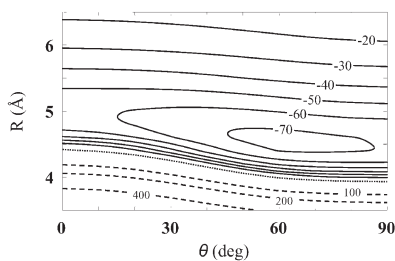


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2008, 73, 1357–1371

**Theoretical Study of the vdW Complex  $\text{Cd}\cdots\text{N}_2$**

Michal Ilčín, Vladimír Lukeš, Viliam Laurinc and Stanislav Biskupič



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2008, 73, 1372–1390

**Quasi-Exactly Solvable Models in Quantum Chemistry**

Jacek Karwowski and Kamil Szewc

