

Accepted Manuscript

Asymptotic behavior of a rotational population distribution in a molecular quantum-kicked rotor with ideal quantum resonance

Leo Matsuoka, Etsuo Segawa, Kenta Yuki, Norio Konno, Nobuaki Obata

PII: S0375-9601(16)31907-7
DOI: <http://dx.doi.org/10.1016/j.physleta.2017.03.032>
Reference: PLA 24419

To appear in: *Physics Letters A*

Received date: 29 November 2016
Revised date: 15 March 2017
Accepted date: 15 March 2017

Please cite this article in press as: L. Matsuoka et al., Asymptotic behavior of a rotational population distribution in a molecular quantum-kicked rotor with ideal quantum resonance, *Phys. Lett. A* (2017), <http://dx.doi.org/10.1016/j.physleta.2017.03.032>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Highlights

- The behavior of the molecular quantum-kicked rotor was mathematically investigated.
- The matrix elements were made correspondent with the ultraspherical polynomials.
- The explicit formula for asymptotic distribution was obtained.
- Complete agreement with the numerical simulation was verified.

Download English Version:

<https://daneshyari.com/en/article/5496382>

Download Persian Version:

<https://daneshyari.com/article/5496382>

[Daneshyari.com](https://daneshyari.com)