



## QUANTITATIVE TREATMENT OF HSAB PRINCIPLE IN MOLECULAR INTER-ACTIONS BETWEEN 4-NITROQUINOLINE-1-OXIDES AND SOME n-DONORS

*Ranjana Shukla*

*Professor, Department of Chemistry, Babu Banarshi Das National Institute of Technology and Management,  
Lucknow, Uttar Pradesh, India*

### ABSTRACT

*4-Nitroquinoline-1-oxide (4-NQO) is a carcinogenic compound. In this paper 4- Nitroquinoline-1-oxide forms molecular complexes with donors. A theoretical attempt has been made to explore the side of interaction and the role of 4-nitroquinoline-1-oxide or its related derivatives in the charge transfer complexation processes involving n-donors based on Klopman's quantitative treatment of the HSAB principle.*

**KEYWORDS:** *4-NQO, 4-HAQO, Ac-4-HAQO, (Ac)<sub>2</sub>-4-HAQO, 4-AQO, N- Donors( Pyridine, Aniline, DMA, Adenine, Guanine, Uracil, Thymine, Cytosine, Ph<sub>3</sub>N, Ph<sub>3</sub>P, Ph<sub>3</sub>As, Ph<sub>3</sub>Sb) Charge Transfer Complexation, Cancer, Quantitative Treatment Of HSAB Principle*

---

### Article History

**Received: 02 May 2019 / Revised: 21 May 2019 / Accepted: 28 May 2019**

---