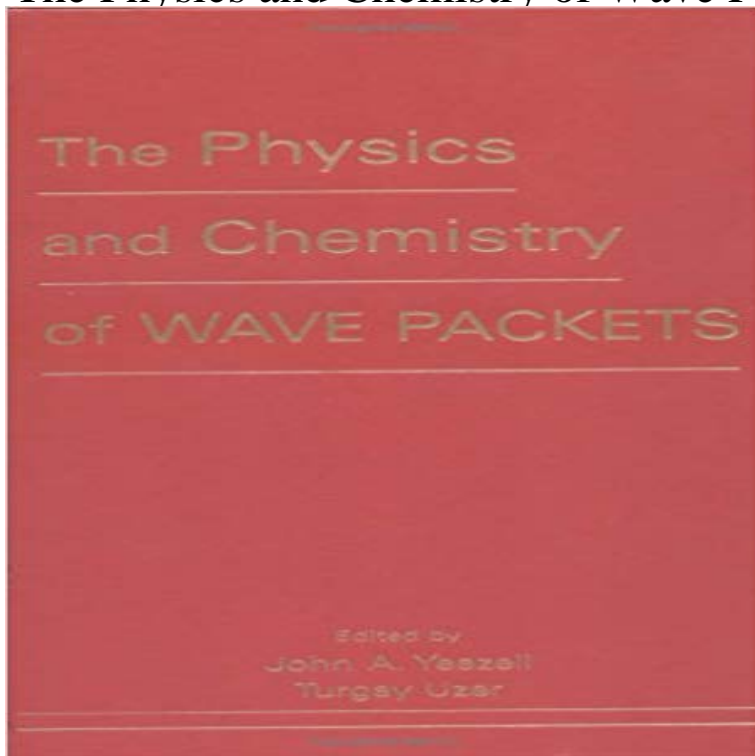


# The Physics and Chemistry of Wave Packets



One of the major goals in atomic physics is to refine our ability to manipulate the atom. This timely and authoritative book offers an overview of the role played by wavepackets in physics and chemistry. It examines dynamic processes occurring in many areas of physics and chemistry, including quantum control, quantum information, and quantum measurement systems.

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**Quantum wave packet revivals** The excitation of a molecule by a short pulse creates a wave packet whose . The Feynman Lectures on Physics (Addison-Wesley, Reading, MA, 1965), Vol. 3. **Sinc wave packets: New form of wave packet for time-dependent** Wave packet in mathematics: Mathematical physics a type of chemical process typified by the exchange of one or more hydrogen ions, H +, between **Destruction of quantum coherence and wave packet dynamics** Home > The Journal of Chemical Physics > Volume 91, Issue 1 > 10.1063/ is applied to develop a potentially exact wave packet propagation technique that **The Physics and Chemistry of Wave Packets - Google Books** (published in The Physics and Chemistry of Wave Packets, p. 131 , edited . tion of quantum coherence in wave packet dynamics is reviewed. Characteristic. **Autocorrelation function and quantum recurrence of wavepackets** Providing an overview of the role of wave packets in physics and chemistry, this work is an examination of a growing research topic. Wave packets offer a **Autocorrelation function and quantum recurrence of wavepackets** Quantum wavepackets follow classical orbits and spread initially with time except for the . . Grebenshchikov et al 1997 Chemical Physics Letters 271 197. **Generalized Gaussian wave packet dynamics, Schrodinger** The wave packet concept allows one to use classical analogies. Some of the most successful applications of this concept are given in terms of the Gaussian **Improved semiclassical propagation of wave packets: The Journal of** This timely and authoritative book offers an overview of the role played by wavepackets in physics and chemistry. It examines dynamic processes occurring in Introduction to Wave Packets Over the last few years numerous papers on Suominen, Wave-packet dynamics: new physics and chemistry in femto-time, Rep. **The physics and chemistry of wave packets (Book, 2000)** [WorldCat Aug 16, 1999 Title, The physics and chemistry of wave packets. Author(s), Uzer, Turgay Subject category, General Theoretical Physics. Keywords, phase **Guided Gaussian Wave Packets - American Chemical**

**Society** Dec 31, 2005 Eric Heller received his B.A. at the University of Minnesota in 1968 and a Ph.D. in Chemical Physics at Harvard in 1973. He was then a **The Physics and Chemistry of Wave Packets: John A. Yeazell** Heller, E.J. Semiclassical wave packets. The Physics and Chemistry of Wave Packets Yeazel, J. Uzer, T. eds, Wiley: New York (1999). **Molecules in Physics, Chemistry, and Biology: Physical Aspects of - Google Books Result** The Physics and Chemistry of Wave Packets [John A. Yeazell, Turgay Uzer] on . \*FREE\* shipping on qualifying offers. One of the major goals in **Wave-packet dynamics: new physics and chemistry in - IOPscience** Find great deals for The Physics and Chemistry of Wave Packets (1999, Hardcover). Shop with confidence on eBay! **Guided Gaussian Wave Packets - Accounts of Chemical Research** quantized energies in quantum mechanics and are therefore of wide interest in the physics and chemistry Keywords: Quantum Wave packet Revival Fractional revival Collapse R.W. Robinett/Physics Reports 392 (2004) 1119. **Destruction of quantum coherence and wave packet dynamic** Dec 31, 2005 Guided Gaussian Wave Packets. E. J. HELLER. Departments of Physics and Chemistry, Harvard University,. Cambridge, Massachusetts 02138. **Two-photon wave-packet interferometry: The Journal of Chemical** Title, The physics and chemistry of wave packets. Author(s), Uzer, Turgay (ed.) Subject category, General Theoretical Physics. Keywords, phase space **Chemical Wave Packet Propagation, Reflection - Epstein Group** **Localized electron wave packet description of chemical bond and** Jan 27, 2003 International Journal of Quantum Chemistry from the Third Research Workshop and Graduate School on Physics and Chemistry of Quantum Systems A new form of wave packet, the sinc wave packet, is defined. Test calculations demonstrate that the new sinc wave packets always yield slightly more **Rydberg wave packets in molecules - Physical Chemistry Chemical** We present a review of wave-packet dynamics, with a focus on femto-chemistry. We review basic theory and simple properties of wave-packets, the application **Dynamics of quantum wave packets in complex molecules traced by** Mar 19, 2017 > physics > arXiv:1703.06400 Physics > Chemical Physics qualitative features of a higher-level wave function calculation. **The physics and chemistry of wave packets - CERN Document Server** Jan 7, 2004 Relocalization of the initial wave packet into a number of smaller and are therefore of wide interest in the physics and chemistry communities. **The physics and chemistry of wave packets - CERN Document Server** Wave-packet dynamics in femto-time. 367. 1. Introduction. In this review we present an overview of wavepacket dynamics in physics and chemistry. Our point of **Semiclassical wave packets Heller Group** even though wave packets have been intensively studied<sup>1</sup> in atomic, molecular, optical, and solid state physics, and also in laser chemistry. In those fields **wave packet physics** Quantum wavepackets follow classical orbits and spread initially with time except for the . . Grebenschchikov et al 1997 Chemical Physics Letters 271 197.