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## Modeling the optical constants of GaP, InP, and InAs

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An extension of the **Adachi** model with the adjustable broadening function, instead of the Lorentzian one, is employed to model the optical constants of GaP, InP, and InAs. Adjustable broadening is modeled by replacing the damping constant with the frequency-dependent expression. The improved flexibility of the model enables achieving an excellent agreement with the experimental data. The relative rms errors obtained for the refractive index equal 1.2% for GaP, 1.0% for InP, and 1.6% for InAs. © 1999 American Institute of Physics.

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#### PACS

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