

DETERMINATION OF THE ELECTRON AFFINITY  
(WORK FUNCTION) OF SEMICONDUCTOR  
NANOCRYSTALS

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S u m m a r y

We present a new method of determination of electron affinity  $X_0(L)$  of semiconductor nanocrystals with various lattice constants  $L$  that takes into account the experimental (or calculated) data on the forbidden gap width  $E_g(L)$  and the relation:  $E_g(L) + X_0(L) = 5.5 - \Delta E_{gv}(L) \approx 5.5$  eV. This relation is proposed to use for bulk and quantum-sized structures. Its detailed verification for a number of semiconductor cubic crystals is performed.