

Turkish Journal of Physics

Turkish Journal

of

Physics

Wigner Crystalization in Semiconductor Quantum Wires

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Abstract: We study the Wigner crystallization in semiconductor quantum wires within the density functional approach. As the density of electrons in quasi-one-dimensional structures is lowered, we find that the system favors the crystalline phase as envisioned by Wigner.

Turk. J. Phys., **23**, (1999), 739-744.

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Other articles published in the same issue: [Turk. J. Phys.,vol.23,iss.4.](#)