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Supporting information for article:

Quantum Pressure Focusing in Solids: A Reconstruction from Experimental Electron Density

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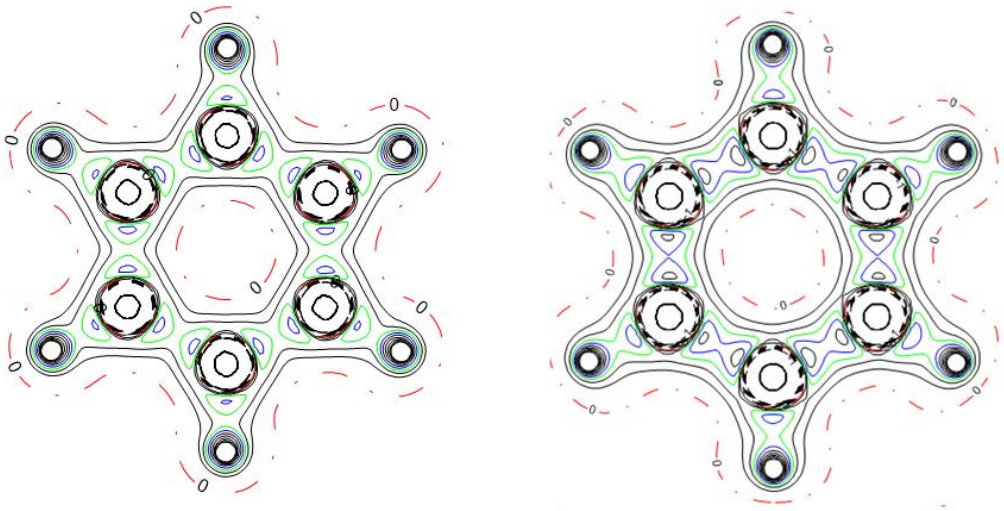

Fig. S1. Comparison of the kinetic contribution to the quantum electron pressure, $p^S(\mathbf{r})$, Eq. 5, for single benzene molecule computed from the wave functions (Kohn-Sham method, B3LYP/aug-cc-pvqz) (left) with GGA approximation, Eq. 10, based on the experimental electron density for the same molecule "extracted" from a crystal (right). Line interval is 0.1 a.u. Grin isoline corresponds to 0.3 a.u.; blue isoline corresponds to 0.4 a.u.

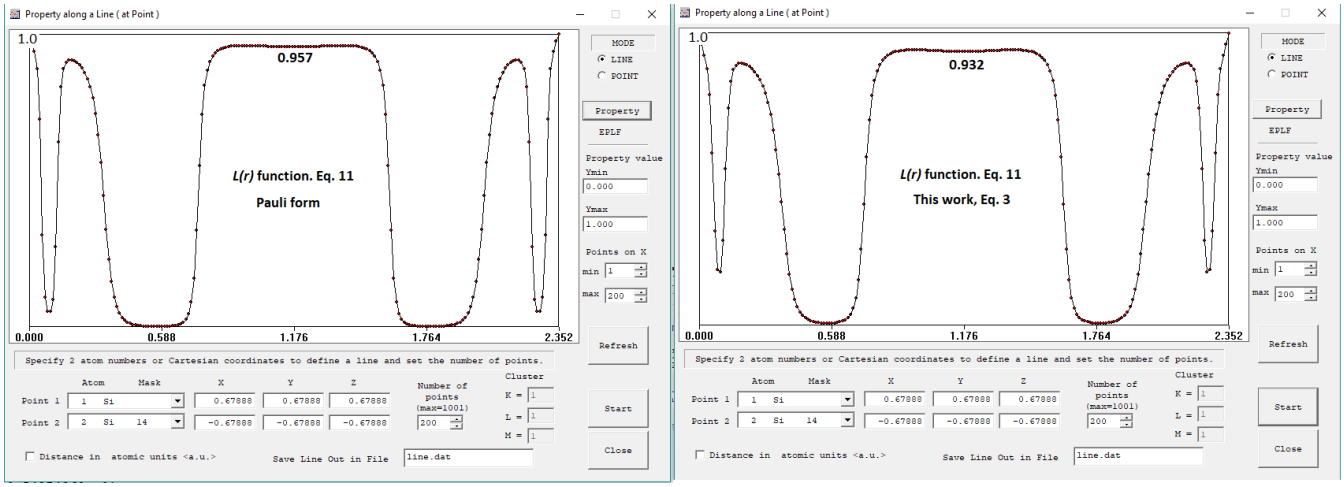

Fig S2. IQPF, $L(\mathbf{r})$, along Si-Si line in silicon computed with Pauli-Schrödinger version of the kinetic stress tensor (Anderson, Ayers & Hernandez, 2010; Finzel & Kohout, 2013) (left) and that resulting from application of our Eq. 3 (right).