

Supplementary Information: Enhancing Light Emission of GaAs Nanowires by Pressure-Modulated Charge Transfer

Luoman Ma,^a Peng Wang,^{*a} Xuotong Yin,^a Yilan Liang,^a Shuang Liu,^a Lixia Li,^b

Dong Pan,^{*b} Zhen Yao,^a Bingbing Liu^a and Jianhua Zhao^b

^a State Key Laboratory of Superhard Materials, Jilin University, Changchun 130012,
China.

^b State Key Laboratory of Superlattices and Microstructures, Institute of
Semiconductors, Chinese Academy of Sciences, P.O. Box 912, Beijing 100083, China.

E-mail: wangpengtrrs@jlu.edu.cn

E-mail: pandong@semi.ac.cn

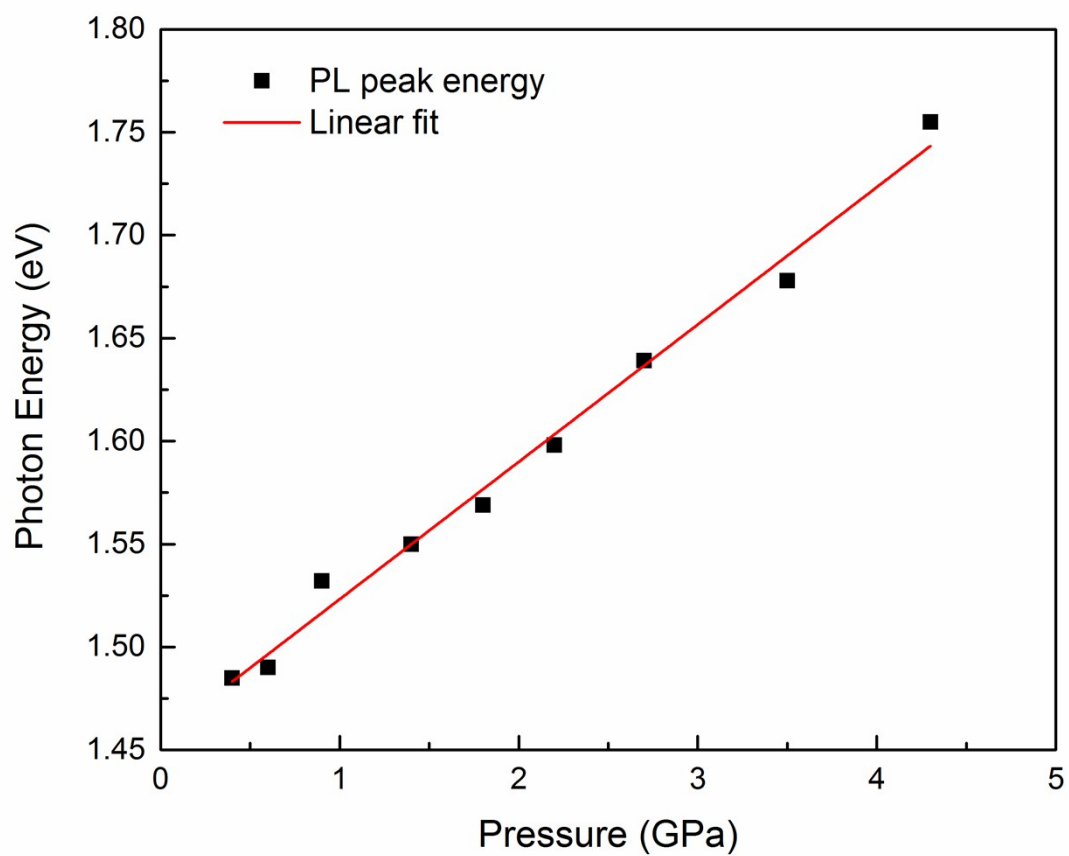


Fig. S1 Peak energy evolution of PL peaks in GaAs nanowires with no PTM fitting as a function of pressure upon compression from 0.4 GPa to 4.2 GPa.

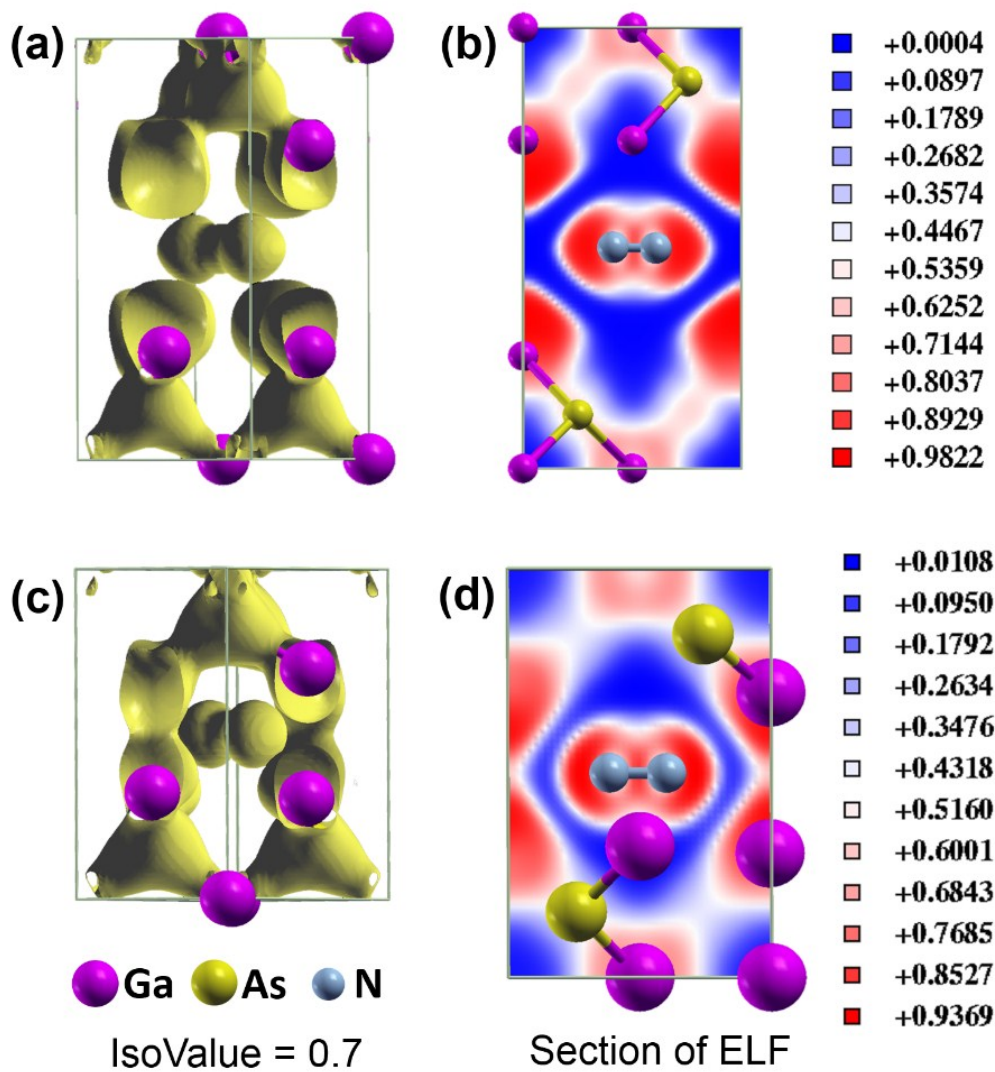


Fig. S2 ELF of the $N_2@GaAs$ at (a) 0 GPa and correspond section (b), (c) 3 GPa and corresponding section (d). The IsoValue of ELF section is 0.7.