1D atomic structures are known for exhibiting exotic physical phenomena e.g. Jahn Teller distortions, charge density wave (CDW) and non-Fermi liquid behavior. Much attention has been paid to impurity medicate CDW based phase transition to tune the Tc temperature. Chiral solitons, trapped by extrinsic defects, which are static enough to be images by STM are recently discovered in In/Si(111) [*Science* **350**,182 (2015)]. In this study we successfully modeled and classified the full spectrum of solitonic and non-solitonic defects jointly via experimental and *first-principles* approaches. Interestingly, we explicate adatom induced as well as adatom free mirror symmetric flipping of In hexagons. This can be one of the many ways to investigate, theoretically, topological effects in in such a 1D system. Funding from DFG FOR1700 is gratefully acknowledged.

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