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Stability Diagram of a Few Electron Triatom ANDREW SACHRAJDA, IMS, NRC, Ottawa, Canada K1A 0R6, LOUIS GAUDREAU, IMS/NRC and Sherbooke University, Quebec, STUDENIKIN SERGEI, ALICIA KAM, JEAN LAPOINTE, PIOTR ZAWADZKI, MAREK KORKUSINSKI, PAWEL HAWRYLAK, IMS, NRC, Ottawa, Canada K1A 0R6 — A lateral few electron triple quantum dot system has been studied and the stability diagram mapped out using charged detection techniques. All three quantum dots are coupled together. The device could be tuned to observe quadruple points including the fundamental ones for quantum information applications, associated with the confinement of one, two and three electrons. The stability diagram includes a series of novel elements, including the cloning of charge transfer lines. The main results are successfully modeled by both capacitive and Hubbard models.

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