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Alexander A Katz* (katza@stjohns.edu), St. John's University, SJC, Dep. of Mathematics and Computer Science, 300 Howard Ave., DaSilva AC 314, Staten Island, NY 10301. *Injective Envelopes of Fréchet Spaces.*

It was shown by Cohen in 1964 that in the category of Banach spaces and linear contraction mappings between them each Banach space has a unique injective envelope up to a linear isometry. Generalizing this work we introduce the notion of a locally contractive linear mapping and a locally isometric linear mapping between Fréchet Locally Convex Spaces. It is then shown that in the category of Fréchet Locally Convex Spaces and locally contractive linear mappings between them an injective envelope for each Fréchet Locally Convex Space always exists and it is unique up to a locally isometric linear mapping. (Received June 28, 2011)