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**Jim Coykendall\*** ([jim.coykendall@ndsu.edu](mailto:jim.coykendall@ndsu.edu)), Department of Mathematics, North Dakota State University, Fargo, ND 58108, and **Chris Spicer** ([spicer@morningside.edu](mailto:spicer@morningside.edu)), Department of Mathematical Sciences, Morningside College, Sioux City, IA 51106. *On Cohen-Kaplansky Domains.*

A Cohen-Kaplansky (CK) domain is an atomic integral domain that contains only finitely many irreducible elements (up to associates). We augment the definition by saying that a CK- $n$  domain is a CK domain with precisely  $n$  irreducible elements (again, up to associates). One can easily see that for every  $n$  a CK- $n$  domain can be constructed by localizing a suitable PID at the set complement of  $n$  height-one primes. The more interesting question is “for every  $n$ , can a CK- $n$  domain be constructed with  $n$  non-prime irreducibles?”. We will consider some new constructions of CK domains and show that, given a slight strengthening of the Goldbach Conjecture, the answer to the questions is “yes”. (Received February 15, 2010)