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Elizabeth M Bator* (bator@unt.edu), Dpartment of Mathematics, University of North texas, Denton, TX 76203, **Paul R Lewis** (lewis@unt.edu), Department of Mathematics, University of North Texas, Denton, TX 76203, and **Dawn R Slavens** (slavensd@nexus.mwsu.edu), Department of Mathematics, Midwestern State University, Wichita Falls, TX 76308. *Vector Measures, c_o and (sb) Operators*. Preliminary report.

We show that if (A_i) is a pairwise disjoint sequence in the ring \mathcal{R} of subsets of Ω , X is a Banach space, and $m : \mathcal{R} \rightarrow X$ is bounded and finitely additive, then $(m(A_i))$ is a hereditary Dunford-Pettis sequence. (This is an extension of a theorem of Emmanuele.) It is then shown that this contains the Orlicz-Pettis theorem, as well as the Diestel-Faires theorem on the structure of a vector measure. (Received October 03, 2000)