10. Zvi Artstein and John A. Burns, **Integration of compact set-valued functions.**
Pacific J. Mathematics 58 (1975), 297-307.

Abstract. A theory of integration of compact set-valued functions is provided by applying the McShane $\mathcal{P}$-integral. This integral is a Riemann-type integral and includes the Bochner Lebesgue and other types of integrals, and by using Riemann sums it avoids the deep measure theory. Thus, the $\mathcal{P}$-integral of set-valued functions contains other types of integrals such as the Hukuhara and Debreu integrals. Generalizations of known results, including the convexity of the integral, are obtained, and the techniques do not require measure theory. Further, if a set-valued function is $\mathcal{P}$-integrable, then its integral equals the Aumann integral, when the latter is defined on the collection of integrals of selections.

For a copy of this paper send a request to zvi.artstein@weizmann.ac.il.