

BANGLADESH PHARMACEUTICAL JOURNAL

Vol. 26, No. 2

July 2023

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- Rashid, M.A., Gustafson, K.R., Crouch, R.C., Groweiss, A., Pannell, L.K., Van, Q.N. and Boyd, M.R. 2002. Application of high-field NMR and cryogenic probe technologies in the structure elucidation of poecillastrin A, a new antitumor macrolide lactam from the sponge *Poecillastra* species. *Org. Lett.* **4**, 3293-3296.
- Harborne, J.B. and Williams, C.A. 2000. Advances in flavonoid research since 1992. *Phytochemistry* 55, 481-504.

- Mabry, T., Markham, K.R. and Thomas, M.B. 1971. *The Systematic Identification of Flavonoids*. Springer Verlag, New York, p. 43.
- Harborne, J.B. 1983. In: Chemistry and Chemical Taxonomy of the Rutales (Waterman, P.G. and Grundon, M.F., Eds.), Academic Press, London, Chapter 2, pp. 147-173.
- Hasan, C.M. 1982. Phytochemical studies on some African Annonaceae. Ph. D. Thesis, University of Strathclyde, U.K., p. 35.

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