Identification of Minor Benzoylated 4-Phenylcoumarins from a Mammea neurophylla Bark Extract

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Through dereplication analysis, seven known Mammea coumarins were identified in a fraction obtained from Mammea neurophylla dichloromethane bark extract selected for its ability to prevent advanced glycation end-product (AGE) formation. Among them, a careful examination of the NMR dataset of pedilanthocoumarin B led to a structural revision. Inspection of LC-DAD-MSn chromatograms allowed us to predict the presence of four new compounds, which were further isolated. Using spectroscopic methods (1H-, 13C- and 2D-NMR, HRMS, UV), these compounds were identified as new benzoyl substituted 4-phenylcoumarins (isopedilanthocoumarin B and neurophyllol C) and 4-(1-acetoxypropyl)coumarins cyclo F (ochrocarpins H and I).

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