LC-MS and LC-PDA Analysis of *Hypericum empetrifolium* and *Hypericum sinaicum*

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Within the framework of our continuous efforts to explore *Hypericum* species from Jordan, we report the analysis of the major active metabolites, naphthodianthrones and phloroglucinols, in the methanolic extracts of two under-explored *Hypericum* species; *H. empetrifolium* Willd. and *H. sinaicum* Hochst. & Steud. ex Boiss., using LC-(+,–)-ESI-MS (TIC and SIM) and LC-UV/Vis spectroscopy. Based on their LC-UV/Vis profiles, retention times and (+,–)-ESI-MS (TIC and SIM) spectral data, hypericin, protohypericin and pseudohypericin were identified in both of the investigated species. In addition adhyperfirin was only detected in *H. empetrifolium*, while hyperforin and protopseudohypericin were only detected in *H. sinaicum*. This is the first report documenting the presence of hypericin, protohypericin, pseudohypericin, protopseudohypericin, and hyperforin in *H. sinaicum*, and adhyperfirin in *H. empetrifolium*.

Key words: Hypericum, Naphthodianthrones, Phloroglucinols