A search for Class 0 protostars in Corona Australis

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The R Coronae Australis core was imaged with the Australia Telescope Compact Array (ATCA) in continuum at 3 and 6 cm. The aim was to investigate if any of the quiescent DCO^+ clumps detected recently (Anderson et al. 1999) contain compact HII regions. Such a source in a dense clump without associated infrared emission may indicate the presence of a very young protostar. No continuum sources, except those previously detected with the VLA (Brown 1987) were found. In particular, no trace was found of the compact radio continuum source in the southern part of the core reported on by Brown & Zuckerman (1975). The properties of the detected continuum sources, their infrared counterparts and their relation to the surrounding molecular material are discussed.

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