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Photoionization of Cl II induced by synchrotron radiation ANTO-NIO JUÁREZ, Universidad Nacional Autónoma de México, A.P. 48-3, Cuernavaca 62251, México, ALEJANDRO AGUILAR, The Advanced Light Source, Lawrence Berkeley National Laboratory, CA 94720, USA, OLMO GONZÁLEZ, University of Groningen, 9747 AA Groningen, The Netherlands, DAVID MACALUSO, Montana State University, Bozeman, Montana 59717, USA, ARMANDO ANTILLON, ALEJANDRO MORALES, Universidad Nacional Autónoma de México, A.P. 48-3, Cuernavaca 62251, México, DAG HANSTORP, University of Gothenburg, SE-412 96 Gothenburg, Sweden, EDGAR HERNÁNDEZ, Universidad Autónoma del Estado de Morelos, Cuernavaca 62210, México, GUILLERMO HINOJOSA, Universidad Nacional Autónoma de México, A.P. 48-3, Cuernavaca 62251, México — The photoionization of Chlorine ions is a fundamental process of interest in several plasma environments. For instance, in FC reactors, negative halogen ions beams are candidates for the injectors. In astrophysics Cl was detected in Io's ionosphere and is used as hydrogen abundance markers. The photoionization of Cl⁺ was measured with a resolution of 20 meV in the photon energy range of 19.5 eV to 27.5 eV. The experiment was carried out in the 10.0.1 end station of the Advanced Light Source. Structures corresponding to Rydberg series are identified. Absolute cross sections were measured. The Advanced Light Source is supported by the Director, Office of Science, Office of Basic Energy Sciences, of the U.S. Department of Energy under Contract No. DE-AC02-05CH11231. DGAPA IN 113010, IN106813 and CONACYT CB-2011/167631. GH thanks technical support of ALS staff.

> Guillermo Hinojosa Universidad Nacional Autónoma de México, A.P. 48-3, Cuernavaca 62251, México

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