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Nondipole Photoemission from Chiral Enantiomers of Camphor¹ K.P. BOWEN, Department of Chemistry, U. Nevada, Las Vegas, NV 89154-4003, W.C. STOLTE, Department of Chemistry, U. Nevada, Las Vegas, NV 89154-4003 and Advanced Light Source, Lawrence Berkeley National Lab, Berkeley, CA, J.A. YOUNG, Jet Propulsion Lab, California Institute of Technology, Pasadena, CA 91109, I.N. DEMCHENKO, Department of Chemistry, U. Nevada, Las Vegas, NV 89154-4003 and Institute of Physics PAS, Warsaw, Poland 02-668, R. GUILLEMIN, CNRS, Laboratoire de Chimie Physique-Matiere et Rayonnement, UMR 7614, Paris, France 75231, O. HEMMERS, Harry Reid Center for Environmental Studies, U. Nevada, Las Vegas, NV 89154-4009, M.N. PIANCASTELLI, Department of Physics and Astronomy, Uppsala University, Uppsala, Sweden SE-75120, D.W. LINDLE, Department of Chemistry, U. Nevada, Las Vegas, NV 89154-4003 — K-shell photoemission from the carbonyl carbon in the chiral molecule camphor has been studied in the region just above the core-shell ionization threshold. Differences between angular distributions of emitted photoelectrons from the two enantiomers are attributed to the influence of chirality combined with nondipole effects in the photoemission process, despite the fact the measurements were taken using *linearly polarized* x-rays. The results suggest the possibility of a new form of linear dichroism.

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