AU L'Hermite, JM, Blanchet, V, Le Padellec, A, Lamory, B, Labastie, P

TI Relaxation of photoexcited Na3F

SO EUROPEAN PHYSICAL JOURNAL D

LA English

DT Article

ID ALKALI-HALIDE CLUSTERS; SODIUM-FLUORIDE CLUSTERS; OPTICAL-RESPONSE, PROPERTIES; EXCESS-ELECTRON; AB-INITIO; SPECTRAL SIGNATURE; LITHIUM-HYDRIDE; EXCITED-STATES; PULSES; SPECTROSCOPY

AB This paper describes the spectroscopy of Na3F both in the frequency and time domains. The photoionization efficiency curve shows two thresholds, associated to two isomers. The excited electronic states of the C-2v isomer have been probed by photodepletion spectroscopy, and the results are used to analyze a time-resolved study of photoexcited Na3F, probed by photoionization. The pump-probe signal clearly shows damped oscillations, the period of which is fitted to 39010 fs, close to twice the previously measured bending mode of Na2F [1], while the relaxation time is 127550 fs.

C1 UPS, IRSAMC, Lab Collis Agregats React, CNRS, UMR 5589, F-31062 Toulouse, France.

RP L'Hermite, JM, UPS, IRSAMC, Lab Collis Agregats React, CNRS,UMR 5589, 118 Route Narbonne, F-31062 Toulouse, France.

EM J-M.Lhermite@irsamc.ups-tlse.fr

NR 23

TC3

PU SPRINGER-VERLAG

PI NEW YORK

PA 175 FIFTH AVE, NEW YORK, NY 10010 USA

SN 1434-6060

J9 EUR PHYS J D

JI Eur. Phys. J. D

PD MAR

PY 2004

**VL 28** 

IS 3

BP 361

**EP 366** 

PG<sub>6</sub>

SC Physics, Atomic, Molecular & Chemical

**GA 805PO** 

UT ISI:000220378400006