41. Li, Z. Q. *et al.* Dirac charge dynamics in graphene by infrared spectroscopy. *Nature Phys.* **4**, 532–535 (2008).
42. Wunsch, B., Stauber, T., Sols, F. & Guinea, F. Dynamical polarization of graphene at finite doping. *New J. Phys.* **8**, 318 (2006).
43. Hwang, E. H. & Das Sarma, S. Dielectric function, screening, and plasmons in two-dimensional graphene. *Phys. Rev. B* **75**, 205418 (2007).
44. Brenneis, A. *et al.* Ultrafast electronic readout of diamond nitrogen-vacancy centres coupled to graphene. Preprint at <http://arXiv.org/abs/1408.1864> (2014).
45. Yin, C. *et al.* Optical addressing of an individual erbium ion in silicon. *Nature* **497**, 91–95 (2013).

Acknowledgements

K.J.T. thanks NWO for a Rubicon fellowship. F.H.L.K. acknowledges support by the Fundacio Cellex Barcelona, the ERC Career integration grant 294056 (GRANOP), the ERC starting grant 307806 (CarbonLight) and support by the E.C. under Graphene Flagship (contract no. CNECT-ICT-604391). F.J.G.d.A. acknowledges support from the Graphene Flagship CNECT-ICT-604391 and FP7-ICT-2013-613024-GRASP. The work at MIT has been supported by AFOSR grant number FA9550-11-1-0225, a Packard Fellowship, and the MISTI-Spain program. This work made use of the Materials Research Science and Engineering Center Shared Experimental Facilities supported by the

National Science Foundation (NSF; award no. DMR-0819762) and of Harvard's Center for Nanoscale Systems, supported by the NSF (grant ECS-0335765). P.G. thanks ANR project RAMACO (No. 12-BS08-0015-01).

Author contributions

F.H.L.K., P.J.-H., F.J.G.d.A., H.d.R. and K.J.T. conceived the experiment. K.J.T., L.O., M.B., S.C. and L.G. carried out the experiments. K.J.T., L.O., F.J.G.d.A., P.J.-H. and F.H.L.K. performed the data analysis. A.F., B.K., T.C., A.C., A.P., A.Z. and P.G. provided materials. G.N., M.B., L.O., S.N. and Q.M. fabricated the samples. F.J.G.d.A. developed the theoretical models. K.J.T., F.H.L.K., P.J.-H. and F.J.G.d.A. wrote the manuscript with the participation of all authors.

Additional information

Supplementary information is available in the online version of the paper. Reprints and permissions information is available online at www.nature.com/reprints. Correspondence and requests for materials should be addressed to F.H.L.K.

Competing financial interests

The authors declare no competing financial interests.

ERRATUM

A universal origin for secondary relaxations in supercooled liquids and structural glasses

Jacob D. Stevenson and Peter G. Wolynes

Nature Physics **6**, 62–68 (2010); published online 1 November 2009; corrected after print 18 February 2015.

In the version of this Article originally published the equation for the distribution of free energy barriers, which follows equation 4, was incorrect and should have read:

$$\Gamma(F^\ddagger) = \frac{\partial}{\partial F^\ddagger} \left\langle \exp \left(-\frac{F_{\text{in}}\phi}{\delta f^2} - \frac{1}{2} F_{\text{in}}q \right) \times \left(1 - \frac{\exp(F_{\text{in}}q) - 1}{\exp(F^\ddagger q) - 1} \right) \right\rangle_{0 < F_{\text{in}} < F^\ddagger}$$

where, $q \equiv \frac{2}{\delta f} \sqrt{\frac{2\phi}{F_{\text{in}}^\ddagger} + \frac{\phi^2}{\delta f^2}}$

This has now been corrected in the online versions of the Article.