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Low temperature specific heat measurements of the spin ice material $Dy_2Ti_2O_7$ D. POMARANSKI, Department of Physics and Astronomy, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1, L.R. YARASKAVITCH, University of Waterloo, S. MENG, Department of Physics and Astronomy, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1, K.A. ROSS, H.M.L. NOAD, H.A. DABKOWSKA, B.D. GAULIN, Department of Physics and Astronomy, Mc-Master University, Hamilton, Ontario, Canada L8S 4M1, J.B. KYCIA, Department of Physics and Astronomy, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1 — Recent work on low temperature magnetization [1] and ac-susceptibility [2] of the spin ice $Dy_2Ti_2O_7$ has revealed a number of inconsistencies with earlier magneto-caloric [3] and thermal relaxation [4] measurements. These unsolved puzzles have motivated us to re-investigate the low temperature specific heat of this material. By measuring the thermal relaxation of $Dy_2Ti_2O_7$, we extract magnetic spin relaxation times and compare them to previous results in the literature.

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