



Figure 43. Computer simulations of the powder EPR spectrum from a naturally abundant Cr(III) spin system ($S = 3/2$; $I = 3/2$) that demonstrates the efficiency of the SOPHE interpolation scheme: (a) without the SOPHE interpolation scheme, $N = 18$; (b) without the SOPHE interpolation scheme, $N = 400$; (c) with the SOPHE interpolation scheme, $N = 18$; and (d) with the mosaic misorientation linewidth model, $N = 18$. Computational times were obtained on both a Linux PC (AMD Athlon XP2400+ CPU with the Mandrake 9.1 operating system) and an SGI supercomputer (MIPS R14K CPU with the IRIX 6.5.20 operating system); the latter times are given in brackets, $\nu = 34$ GHz; field axis resolution 4096 points; an isotropic Gaussian lineshape with a halfwidth at half-maximum of 30 MHz was used in the simulation.