Title:	Understanding cross-polarization (CP) NMR experiments through dipolar truncation
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Abstract:	A theoretical model based on the phenomenon of dipolar truncation is proposed to explain the nuances of polarization transfer from abundant to less-abundant nuclei in cross-polarization (CP) NMR experiments. Specifically, the transfer of polarization from protons to carbons (in solids) in strongly coupled systems is described in terms of effective Hamiltonians based on dipolar truncation. Through suitable model spin systems, the important role of dipolar truncation in the propagation of spin polarization in CP experiments is outlined. We believe that the analytic theory presented herein provides a convenient framework for modeling polarization transfer in strongly coupled systems.
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