

Dataset 1: (Collection of data published/archived together)

Short description of data:

Series of magnetic exchange couplings for CoNb₂O₆ for various initial conditions/ microscopic parameters. Microscopic input, e.g. hopping parameters were obtained from DFT (FPLO)

Origin of data (institution):

Goethe Universität Frankfurt, FB 13, ITP, AG Valenti

(3rd party) Software used:

FPLO

☐ additional information included as README with data

Data availability:

☐ published at (DOI)

☒ on reasonable request, to corresponding author. Data is archived:

☐ according to local policy at institution (as provided).

☐ other (Please provide details: location, accessible by, ...)

☒ data included in publication or as supplemental online material at the publishers website

Source availability: (own software or scripts, used to generate/process data)

☐ published at (link)

☐ archived/published with data

☐ archived according to local policy at institution (as provided)

☒ other (Please provide details: location, accessible by, ...)

On reasonable request, to corresponding author: Amanda Anna Konieczna

Dataset 2: (Collection of data published/archived together)

Short description of data:

INS and THz data from exchange couplings, obtained through exact diagonalization

Origin of data (institution):

Goethe Universität Frankfurt, FB 13, ITP, AG Valenti

(3rd party) Software used:

☐ additional information included as README with data

Data availability:

☒ published at (DOI)

TBA

☐ on reasonable request, to corresponding author. Data is archived:

☐ according to local policy at institution (as provided).

☐ other (Please provide details: location, accessible by, ...)

☐ data included in publication or as supplemental online material at the publishers website

Source availability: (own software or scripts, used to generate/process data)

☐ published at (link)

☐ archived/published with data

☐ archived according to local policy at institution (as provided)

☒ other (Please provide details: location, accessible by, ...)

On reasonable request, to corresponding author: David A. S. Kaib