Aligning magnets

Each of the words and phrases are missing fragments. Fortunately, the fragments are all magnetized, so they will snap into place when you use the clues to order them correctly. As a bonus, the letters in the highlighted boxes spell out a key component of ferrofluids.

Has all electron spins paired

Substances that help stabilize ferrofluids

Ferrofluids are colloidal ___

Has randomly oriented electron spins

Has parallel-oriented electron spins

An application for ferrofluids: space ___

Has parallel electron spins, with some in the opposite direction

A medical application for ferrofluids

Configuration of atoms in magnetite

Magnet fragments

IMA NET TIO

ACT ANT DRA ERR GNE ION OMA URF

AGN ARA ENS ETI GNE IVE ORA USP

AHE DEL ERR ETR IAM MAG RUG XPL

Aligning magnets

ANSWER KEY

Has all electron spins paired — D I A M A G N E T I C

Substances that help stabilize ferrofluids — S U R F A C T A N T S

Ferrofluids are colloidal ___ — S U S P E N S I O N S

Has randomly oriented electron spins — P A R A M A G N E T IC

Has parallel-oriented electron spins — F E R R O M A G N E TIC

An application for ferrofluids: space ___ — E X P L O R A T I O N

Has parallel electron spins, with some in the opposite direction — F E R R I M A G N E TIC

A medical application for ferrofluids — D R U G D E L I V E RY

Configuration of atoms in magnetite — T E T R A H E D R A L

Key component of ferrofluids:

IRON OXIDE