# Release notes for RESCU-2.4.0

1. **New** DFPT calculation `elph` computes the electron-phonon coupling matrix elements. This experimental feature provides the raw matrix elements which researchers may use to compute various physical parameters depending on the electron-phonon interaction.

2. **New** DFPT framework now handles systems without an electronic bandgap, and hence spans insulators, semiconductors and metals.

3. **New** keyword `spin.kresolved` allows computing the non-collinear magnetic moment with respect to k-point. This allows visualizing spin textures among other things.

4. **Improved** DFPT framework now takes advantage of symmetry to significantly reduce the phonons calculation time in crystalline systems.

5. **Bug fix** Vacuum atoms may now be introduced in non-collinear spin calculations.

6. **Bug fix** Phonons energy unit is unified and set to $cm^{-1}$ in DFPT optic and Raman calculations. **This may have broken the plotting feature in certain cases (wrong units).**

7. **Bug fix** The contribution of images charges is more robustly captured in calculation of phonons band-structure and density of states. **This may have resulted in incorrect BS and DOS in certain cases (would show as wild oscillations).**

Note: Unless otherwise specified, bug fixes do not influence previous results.