

July 14, 2020

MagLab Summer Exploration Series  
Week 7 Links

Hey everyone! Scientists and engineers are on a quest to make products smaller, faster, smarter and stronger, including at the MagLab where we are constantly in search of better magnets. Let's get familiar with one facet of materials science called [Condensed Matter Physics](#). After getting a brief introduction to CMP, let's discuss [making thin films](#).

Now that you are familiar with the topics, read about MagLab physicist Christianne Beekman's work on "atomic-level engineering" with ultra-thin materials, as she is practically [Spinning Electrons into Technology Gold](#).

You can also find out how MagLab chemist Yan-Yan Hu is working towards boosting the performance of materials by engineering them with the best possible flaws. That's right, she is working to make the flaws beneficial. Read more about how [Practice Makes Imperfect](#).

A material that you may never have heard of could be paving the way for a new electronic revolution. Researchers working at the National MagLab are exploring the exciting properties of phosphorene, but what is it and why is it so important? Click here to find [Five Reasons Phosphorene May be a New Wonder Material](#).

Now let's get more in depth. [Materials research](#) is one of the biggest things we do at the MagLab because of the ever growing need for faster, stronger, and better materials. New materials are crucial in the creation of the high-tech products that have changed your life.

Researchers in [Condensed matter science](#) include theoretical and experimental physicist who concentrate on topics such as magnetism, quantum hall effects, quantum oscillations, high-temperature superconductivity, and heavy fermion systems, just to name a few.

Any questions? Email [Carlos R. Villa](#).