

L^AT_EX Term Paper Template

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github.com/jidicula/latex_templates

July 25, 2018

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1 SI Units

The package `siunitx` allows you to correctly use SI units (like degrees Celsius). You can do proper SI formatting with `\SI{1}{\meter}` to render as 1 m. See [the siunitx documentation](#) for more details. I've also included the molar symbol as a special command: `\SI{1}{\Molar}` becomes 1 M.

2 Chemical equations

The package `mhchem` allows you to make chemical formula, like MgCl_2 . The full documentation is available [here](#).

3 Figures

I've included a bunch of figure snippets at the end of the source for this file. The best practice is to organize your images in a `./img/` directory. You can then link to a figure by referencing the label in `\ref{fig:figlabel}`. For example, we plate our cells on a soft silicone substrate embedded with fluorescent beads for traction force microscopy, shown in Figure 1. You can read more about cross-referencing [here](#).

4 Citations

You can easily cite sources using the cite keys for the entries in your `.bib` file. The bibliography styles are set and the bibliography is generated using

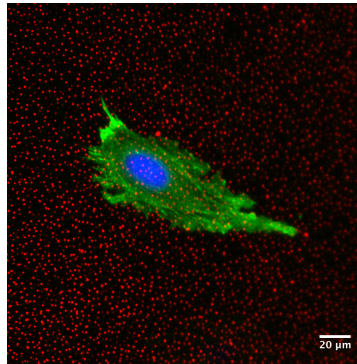


Figure 1: HEK 293 cell transfected with ACTN4-hGFP and Nuc7-EBFP plated on a 10kPa PDMS substrate embedded with a monolayer of poly methylmethacrylate DiI-core beads.

`\bibliographystyle{unsrt}`

`\bibliography{term_paper}`

at location where you want your bibliography to be placed.

Here's an example:

My lab developed a technique for traction force microscopy on soft silicone substrates [1]. Deformation has been observed to be the independent variable in mechanotransduction [2, 3].

5 References

- [1] Haruka Yoshie, Newsha Koushki, Rosa Kaviani, Mohammad Tabatabaei, Kavitha Rajendran, Quynh Dang, Amjad Husain, Sean Yao, Chuck Li, John K. Sullivan, Magali Saint-Geniez, Ramaswamy Krishnan, and Allen J. Ehrlicher. Traction force screening enabled by compliant pdms elastomers. *Biophysical Journal*, 114(9):2194–2199, 2018.
- [2] Arash Tajik, Yuejin Zhang, Fuxiang Wei, Jian Sun, Qiong Jia, Wenwen Zhou, Rishi

Singh, Nimish Khanna, Andrew S. Belmont, and Ning Wang. Transcription upregulation via force-induced direct stretching of chromatin. *Nature Materials*, 15(12):1287–1296, Aug 2016.

- [3] Allen J. Ehrlicher, Ramaswamy Krishnan, Ming Guo, Cécile M. Bidan, David A. Weitz, and Martin R. Pollak. Alpha-actinin binding kinetics modulate cellular dynamics and force generation. *Proceedings of the National Academy of Sciences*, 112(21):6619–6624, Apr 2015.