

Resources for a home biolab

ARTLABORATORYBERLIN



A bio lab in a garage

Garage biotech: Life hackers
Amateur hobbyists are creating home-brew molecular-biology labs, but can they ferment a revolution?

Published online 6 October 2010 | Nature 467, 650-652
(2010) | doi:10.1038/467650a



What do I need?

- ❖ Equipment
- ❖ Consumables
- ❖ Chemicals
- ❖ Knowledge



Lab Equipment



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Open Source Hardware” logo proposed by
OSHWA, CC SA 1.0



Consumables

Online shopping:

- ❖ www.amazon.com Interface for national online retailers
- ❖ www.ebay.com Allows individual sales practices
- ❖ www.aliexpress.com Quick and cheap interface to China
- ❖ www.alibaba.com (Advanced) Deal with manufacturers
- ❖ Specialised online shops; more or less specialised producers and retailers



Chemicals - Approaches to get them

- ❖ **Buying them at the local store:**
 - Check cross-application of chemicals
 - Check purity grade according to your use
- ❖ **Online shopping:**
 - Check if the law allows private purchase
- ❖ **Eventually extract your chemical from mixtures:**
(know what you are doing, and with whom)



Mushrooms

For the Mycofabrication session we used Reishi
(*Ganoderma Lucidum*)

Online shops:

- ❖ www.pilzmaennchen.de
(Germany - EU)

The forest:

- ❖ On the ground
- ❖ On dead logs
- ❖ On living trees



Substrates

- ❖ **Buy at local stores:**
 - Baumarkt (Construction market)
 - Pet shop
 - Carpenter
- ❖ **Buying them online**
 - Look for application-specific materials



About do-it-yourself mycology

Practical resources

Resources:

- ❖ www.biofabforum.org
EU community sharing protocols and experiences
- ❖ Facebook group: Fungal Materials & Biofabrication



About do-it-yourself mycology

Theoretical resources

Books:

- ❖ Mycelium running: how mushrooms can help save the world (2004)
- ❖ Radical Mycology: A Treatise on Seeing & working with Fungi (2016)



Academic knowledge Part 1

One of many possible methods:

❖ www.wikipedia.org

Gather basic informations about your research and follow the references that link statements to their sources at the end of the page



Academic knowledge Part 2

How to access academic papers:

- ❖ www.scholar.google.com
- ❖ <http://unpaywall.org/>

If behind a paywall:

- ❖ Ask the author for a copy (professor, not the publisher)

