Unit n ℭ2 Supplement

3D printing fantasy

** Macro-, micro-, nano-3D-printing
** Precision 3D printer & high-resolution ion microscope (** deposition,
** ablation (correction, reengineering, …))
** 3D-printed LED and sensor arrays
** 3D-printed metamaterials [7]
** 3D-printed composite materials [8], esp. shielding materials (fire, electric and magnetic fields, RF, EMP, radiation, …)
** 3D-printed smart materials [9]
** 3D-printed self-healing materials
** 3D-printed inorganic and organic membrane and sponge materials [10,11]
** 3D-printed holograms
** 3D-printer aided design:
New product idea → 3D-printed hologram of the product → corrections → prototype of the product → function test → …

References

[7] https://en.wikipedia.org/wiki/Metamaterial
[8] https://en.wikipedia.org/wiki/Composite_material
[9] https://en.wikipedia.org/wiki/Smart_material
[10] http://www.bing.com/images/search?q=membrane%20structur

es&qs=n&form=QBIR&pq=membrane%20structures&sc=3-19&sp=-1&sk
[11]http://www.bing.com/images/search?q=sponge%20structure&qs=n&form=QBIR&pq=sponge%20structure&sc=0-10&sp=-1&sk
CN
[12] http://www.ecns.cn/2015/12-01/190767.shtml
“Chongqing Municipality in southwest China will set up an innovation center for 3D printing technology, local authorities said. It has signed investment deals with 15 companies and institutions on robotics and smart equipment, the commission said. The National Engineering Research Center of Rapid Manufacturing will operate the center, scheduled to begin trial operation in January, 2016.”
[14] http://www.alibaba.com/countrysearch/CN/3d-printer.html
[15] http://detail.zol.com.cn/3d_printer/chongqing/