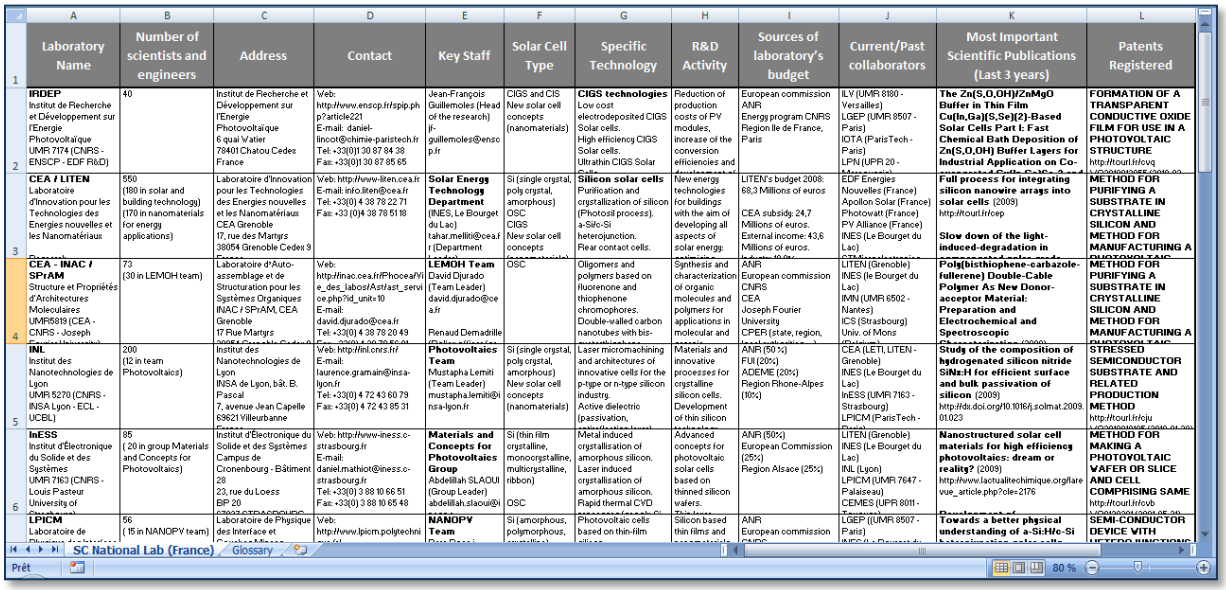
Example of laboratories/experts/skills identification

I) Excel File



Laboratory Name	Number of scientists and engineers	Address	Contact	Key Staff	Solar Cell Type	Specific Technology	R&D Activity	Sources of laboratory's budget	Current/Past collaborators	Most Important Scientific Publications (Last 3 years)	Patents Registered
IRDEP Institut de Recherche et Développement sur l'Energie Photovoltaïque UMR 7174 (CNRS - ENSCP - EDF R&D)	40	Institut de Recherche et Développement sur l'Energie Photovoltaïque 6 quai Watier 78401 Chatou Cedex France	Web: http://www.ensop.fr/spip.php?article221 E-mail: daniel-lincot@chimie-paristech.fr Tel: +33(0)1 30 87 84 38 Fax: +33(0)1 30 87 85 65	Jean-François Guillemoles (Head of the research) jf-guillemoles@ensop.fr	CIGS and CIS New solar cell concepts (nanomaterials)	**CIGS technologies** Low cost electrodeposited CIGS Solar cells. High efficiency CIGS Solar cells. Ultrathin CIGS Solar	Reduction of production costs of PV modules, increase of the conversion efficiencies and	European commission ANR Energy program CNRS Region Ile de France, Paris	ILV (UMR 8180 - Versailles) LGEP (UMR 8507 - Paris) IOTA (ParisTech - Paris) LPN (UPR 20 -	**The Zn(S,O,OH)/ZnMgO Buffer in Thin Film Cu(In,Ga)(S,Se)(2)-Based Solar Cells Part I: Fast Chemical Bath Deposition of Zn(S,O,OH) Buffer Layers for Industrial Application on Co-** http://ourl.fr/cvq	**FORMATION OF A TRANSPARENT CONDUCTIVE OXIDE FILM FOR USE IN A PHOTOVOLTAIC STRUCTURE** http://ourl.fr/cvq
CEA / LITEN Laboratoire d'Innovation pour les Technologies des Energies nouvelles et les Nanomatériaux	550 (180 in solar and building technology) (170 in nanomaterials for energy applications)	Laboratoire d'Innovation pour les Technologies des Energies nouvelles et les Nanomatériaux CEA Grenoble 17, rue des Martyrs 38054 Grenoble Cedex 9	Web: http://www-liten.cea.fr E-mail: info.liten@cea.fr Tel: +33(0) 4 38 78 22 71 Fax: +33 (0)4 38 78 51 18	**Solar Energy Technology Department** (INES, Le Bourget du Lac) tahar.mellitti@cea.fr (Department	Si (single crystal, poly crystal, amorphous) OSC CIGS New solar cell concepts	**Silicon solar cells** Purification and crystallization of silicon (Photosil process). a-Si/c-Si heterojunction. Rear contact cells.	New energy technologies for buildings with the aim of developing all aspects of solar energy:	LITEN's budget 2008: 68,3 Millions of euros CEA subsidy: 24,7 Millions of euros. External income: 43,6 Millions of euros.	EDF Energies Nouvelles (France) Apollon Solar (France) Photowatt (France) PV Alliance (France) INES (Le Bourget du Lac)	**Full process for integrating silicon nanowire arrays into solar cells** (2009) http://ourl.fr/oep **Slow down of the light-induced-degradation in**	**METHOD FOR PURIFYING A SUBSTRATE IN CRYSTALLINE SILICON AND METHOD FOR MANUFACTURING A**
CEA - INAC / SPrAM Structure et Propriétés d'Architectures Moléculaires UMR5819 (CEA - CNRS - Joseph	73 (30 in LEMOH team)	Laboratoire d'Auto-assemblage et de Structuration pour les Systèmes Organiques INAC / SPrAM, CEA Grenoble 17 Rue Martyrs	Web: http://inac.cea.fr/Phocea/Vie_des_labos/Ast/ast_service.php?id_unit=10 E-mail: david.djurado@cea.fr Tel: +33(0) 4 38 78 20 49	**LEMOH Team** David Djurado (Team Leader) david.djurado@cea.fr Renaud Demadrille	OSC	Oligomers and polymers based on fluorenone and thiophenone chromophores. Double-walled carbon nanotubes with bis-	Synthesis and characterization of organic molecules and polymers for applications in molecular and	ANR European commission CNRS CEA Joseph Fourier University CPER (state, region,	LITEN (Grenoble) INES (le Bourget du Lac) IMN (UMR 6502 - Nantes) ICS (Strasbourg) Univ. of Mons	**Poly[bisthiophene-carbazole-fullerene) Double-Cable Polymer As New Donor-aceptor Material: Preparation and Electrochemical and Spectroscopic**	**METHOD FOR PURIFYING A SUBSTRATE IN CRYSTALLINE SILICON AND METHOD FOR MANUFACTURING A**
INL Institut des Nanotechnologies de Lyon UMR 5270 (CNRS - INSA Lyon - ECL - UCBL)	200 (12 in team Photovoltaics)	Institut des Nanotechnologies de Lyon INSA de Lyon, bât. B. Pascal 7, avenue Jean Capelle 69621 Villeurbanne	Web: http://inl.cnrs.fr/ E-mail: laurence.gramain@insa-lyon.fr Tel: +33(0) 4 72 43 60 79 Fax: +33(0) 4 72 43 85 31	**Photovoltaics Team** Mustapha Lemiti (Team Leader) mustapha.lemiti@insa-lyon.fr	Si (single crystal, poly crystal, amorphous) New solar cell concepts (nanomaterials)	Laser micromachining and architectures of innovative cells for the p-type or n-type silicon industry. Active dielectric (passivation,	Materials and innovative processes for crystalline silicon cells. Development of thin silicon	ANR (50 %) FUI (20%) ADEME (20%) Region Rhone-Alpes (10%)	CEA (LETI, LITEN - Grenoble) INES (Le Bourget du Lac) InESS (UMR 7163 - Strasbourg) LPICM (ParisTech -	**Study of the composition of hydrogenated silicon nitride SiNx:H for efficient surface and bulk passivation of silicon** (2009) http://dx.doi.org/10.1016/j.solmat.2009.01.023	**STRESSED SEMICONDUCTOR SUBSTRATE AND RELATED PRODUCTION METHOD** http://ourl.fr/cju
InESS Institut d'Électronique du Solide et des Systèmes UMR 7163 (CNRS - Louis Pasteur University of	85 (20 in group Materials and Concepts for Photovoltaics)	Institut d'Électronique du Solide et des Systèmes Campus de Cronenbourg - Bâtiment 28 23, rue du Loess BP 20	Web: http://www-iness.c-strasbourg.fr E-mail: daniel.mathiot@iness.c-strasbourg.fr Tel: +33(0) 3 88 10 66 51 Fax: +33(0) 3 88 10 65 48	**Materials and Concepts for Photovoltaics Group** Abdellilah SLAOUI (Group Leader) abdellilah.slaoui@i	Si (thin film crystalline, monocrystalline, multicrystalline, ribbon) OSC	Metal induced crystallisation of amorphous silicon. Laser induced crystallization of amorphous silicon. Rapid thermal CVD	Advanced concepts for photovoltaic solar cells based on thinned silicon wafers.	ANR (50%) European Commission (25%) Region Alsace (25%)	LITEN (Grenoble) INES (Le Bourget du Lac) INL (Lyon) LPICM (UMR 7647 - Palaiseau) CEMES (UPR 8011 -	**Nanostructured solar cell materials for high efficiency photovoltaics: dream or reality?** (2009) http://www.lactualitechimique.org/flare/vue_article.php?ole=2176	**METHOD FOR MAKING A PHOTOVOLTAIC WAFER OR SLICE AND CELL COMPRISING SAME** http://ourl.fr/cvb
LPICM Laboratoire de	56 (15 in NANOPV team)	Laboratoire de Physique des Interface et	Web: http://www.lpicm.polytechni	**NANOPV Team**	Si (amorphous, polymorphous,		Silicon based thin films and	ANR European commission	LGEP (UMR 8507 - Paris)	**Towards a better physical understanding of a-Si:H/c-Si**	**SEMI-CONDUCTOR DEVICE WITH**

SC National Lab (France) | Glossary | Prêt | 80 %

Content of the Excel File

Institute/Laboratory Name

-Acronym and French name corresponding to the acronym.

-Identifier of the research unit and institutions taking part the research unit.

-Relevant research team/group/department.

Number of scientists and engineers

-Number of scientists and engineers working in the laboratory.

-Number of scientists and engineers working in the relevant research team/group/department.

Address

Complete postal address

Contact

-Website address of the laboratory.

-General e-mail address of the laboratory.

-General phone number of the laboratory.

-General fax number of the laboratory.

Key staff

-Name of the team/group/department leader

-e-mail address of the team/group/department leader

Solar cell type

Types of solar cells studied by the research team/group/department.

Specific technology

Specific technologies of the research team/group/department.

R&D Activity

R&D activities of the research team/group/department.

Sources of laboratory's budget

Note that some laboratories don't want communicate more details regarding their budget sources.

Current/Past collaborators

Current/past collaborators of the research team/group/department.

Scientific publications (last 3 years)

Most important scientific publications of the research team/group/department (last 3 years).

-Title.

-Year of publication.

-URL link.

Patents registered

Patents in relation with photovoltaic solar cells.

-Title.

-URL link.

-Number of publication and date of publication.

For each *patent family**, we have chosen to give the patent with the more widespread geographical protection. The other patents are available via the URL link (patent database *Espacenet* www.espacenet.com).

*A *patent family* is a set of patents taken in various countries to protect a single invention (when a first application in a country - the priority - is then extended to other offices).

II) Interactive map of laboratories