**Contact Information**

Name: Click here to enter text.

Institute: Click here to enter text.

Group: Click here to enter text.

Activity:

Experimental (please, fill section A)

User facility (please, fill section B)

Target fabrication laboratory (please, fill section C)

Material science laboratory (please, fill section C)

**Section A**

**Experimental groups**

What are your main scientific interests?

Laser-driven particle acceleration

Laser-driven nuclear physics

Shock-compression

High pressure physics

Isochoric heating

Laser-driven X-rays/gamma

High harmonics

Strong magnetic fields

Material science

Laboratory astrophysics

WDM

Other (please specify): Click here to enter text.

Where are your targets produced?

Internal fabrication laboratory (please, fill also section C): Click here to enter text. %

Collaboration with external target fabrication laboratories: Click here to enter text.%

Please, specify: Click here to enter text.

Purchase: Click here to enter text.%

Please, specify: Click here to enter text.

Other: Click here to enter text.%

Please, specify: Click here to enter text.

**Target needs**

1) Foils (single layer) [Click here to enter text.%]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Thickness | Quantity/year | Composition | Size and arrangement | Special requirements  and issues |
| < 100 nm | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 100 nm - 1 µm | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 1-10 µm | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 10-100 µm | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| > 100 µm | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

How many experimental campaigns do you perform with foil targets per year? Click here to enter text.

Typical repetition rate and number of shots for each experiment (cross the appropriate fields)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rep rate  Shots | 1 shot/hour | 1 shot/min | 10 shots/min | 1 Hz | 10 Hz | Other |
| 1 to 50 |  |  |  |  |  | Click here to enter text. |
| 50 to 100 |  |  |  |  |  | Click here to enter text. |
| 100 to 300 |  |  |  |  |  | Click here to enter text. |
| 300 to 600 |  |  |  |  |  | Click here to enter text. |
| > 600 |  |  |  |  |  | Click here to enter text. |

On average, how many targets are shot during an experimental campaign (with respect to the total number of targets produced for the experiment)?

> 90 %

70-90 %

50-70 %

< 50 %

2) Multilayers and gradient targets [Click here to enter text.%]

Describe a typical multilayer/gradient target

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Layer | Thickness | Composition | Area | Special requirements  and issues |
|  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 2. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 3. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 4. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 5. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

Number of targets/year: Click here to enter text.

How many experimental campaigns do you perform with multilayer/gradient targets per year? Click here to enter text.

Typical repetition rate and number of shots per experiment (cross the appropriate fields)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rep rate  Shots | 1 shot/hour | 1 shot/min | 10 shots/min | 1 Hz | 10 Hz | Other |
| 1 to 50 |  |  |  |  |  | Click here to enter text. |
| 50 to 100 |  |  |  |  |  | Click here to enter text. |
| 100 to 300 |  |  |  |  |  | Click here to enter text. |
| 300 to 600 |  |  |  |  |  | Click here to enter text. |
| > 600 |  |  |  |  |  | Click here to enter text. |

On average, how many multilayer/gradient targets are shot during an experimental campaign (with respect to the total number of available targets)?

> 90 %

70-90 %

50-70 %

< 50 %

3) Patterned surfaces [Click here to enter text. %]

1D gratings - properties (period; depth, shape): Click here to enter text.

2D gratings – properties: Click here to enter text.

Other (please specify): Click here to enter text.

Number of targets/year: Click here to enter text.

How many experimental campaigns do you perform with patterned surface targets per year? Click here to enter text.

Typical repetition rate and number of shots per experiment (cross the appropriate fields)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rep rate  Shots | 1 shot/hour | 1 shot/min | 10 shots/min | 1 Hz | 10 Hz | Other |
| 1 to 50 |  |  |  |  |  | Click here to enter text. |
| 50 to 100 |  |  |  |  |  | Click here to enter text. |
| 100 to 300 |  |  |  |  |  | Click here to enter text. |
| 300 to 600 |  |  |  |  |  | Click here to enter text. |
| > 600 |  |  |  |  |  | Click here to enter text. |

On average, how many targets are shot during an experimental campaign (with respect to the total number of available targets)?

> 90 %

70-90 %

50-70 %

< 50 %

4) Micro and nanostructures

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Geometry  (Rods,Wires, Beads, Hohlraums…) | Size | Composition | Substrate | Method of preparation | Special requirements and issues |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

Number of targets/year: Click here to enter text.

How many experimental campaigns do you perform with micro/nano-structured targets per year? Click here to enter text.

Typical repetition rate and number of shots per experiment with micro/nano- structures (cross the appropriate fields)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rep rate  Shots | 1 shot/hour | 1 shot/min | 10 shots/min | 1 Hz | 10 Hz | Other |
| 1 to 50 |  |  |  |  |  | Click here to enter text. |
| 50 to 100 |  |  |  |  |  | Click here to enter text. |
| 100 to 300 |  |  |  |  |  | Click here to enter text. |
| 300 to 600 |  |  |  |  |  | Click here to enter text. |
| > 600 |  |  |  |  |  | Click here to enter text. |

On average, how many targets are shot during an experimental campaign (with respect to the total number of available targets)?

> 90 %

70-90 %

50-70 %

< 50 %

Please, describe other complex geometry target of interest for your experiments.

1) Click here to enter text.

2) Click here to enter text.

3) Click here to enter text.

4) Click here to enter text.

5) Click here to enter text.

What are the annual needs for targets described above?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Target 1 | Target 2 | Target 3 | Target 4 | Target 5 |
| Targets/year | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Experiments/year | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

Typical repetition rate and number of shots per experiment for the targets described above?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Rep rate  Shots | 1 shot/hour | 1 shot/min | 10 shots/min | 1 Hz | 10 Hz | Other |
| 1 to 50 | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 50 to 100 | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 100 to 300 | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| 300 to 600 | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| > 600 | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

On average, how many targets are shot during an experimental campaign (with respect to the total number of available targets)? Click here to enter text.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Target 1 | Target 2 | Target 3 | Target 4 | Target 5 |
| > 90 % |  |  |  |  |  |
| 70-90 % |  |  |  |  |  |
| 50-70 % |  |  |  |  |  |
| < 50 % |  |  |  |  |  |

**Computational tools**

Which kind of simulation tools do you require for target optimization?

Hydrodynamic codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Particle In Cell codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Monte Carlo codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Atomic codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Other (please specify): Click here to enter text.

**Section B**

**User facilities**

**Timescale**

When will the facility become operative?

Fully operative

Experimental time/year (hours): Click here to enter text.

Not fully operative

|  |  |  |
| --- | --- | --- |
|  | Timescale (year) | Experimental time /year (hours) |
| First operation | Click here to enter text. | Click here to enter text. |
| Ramp-up from first operation to full operation | Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. |
| Full operation | Click here to enter text. | Click here to enter text. |

**Facility**

Expected experimental activities?

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Repetition rate | Fraction [%] | Approx. number of targets/year |
| Laser-driven particle acceleration | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Shock-compression | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Isochoric heating | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| X-Ray and gamma radiation | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Extreme UV | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Material and bio science | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| High fields, WDM, lab astrophysics | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Other (please specify)  Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

Laser properties (please, fill the table for each available laser)

|  |  |  |
| --- | --- | --- |
| Laser name | Click here to enter text. | |
|  | Expected (first operation) | Fully operational |
| Pulse energy | Click here to enter text. | Click here to enter text. |
| Focal spot | Click here to enter text. | Click here to enter text. |
| Pulse duration | Click here to enter text. | Click here to enter text. Click here to enter text. |
| Intensity | Click here to enter text. | Click here to enter text. |
| Contrast | Click here to enter text. | Click here to enter text. |
| Other | Click here to enter text. | Click here to enter text. |

|  |  |  |
| --- | --- | --- |
| Laser name | Click here to enter text. | |
|  | Expected (first operation) | Fully operational |
| Pulse energy | Click here to enter text. | Click here to enter text. |
| Focal spot | Click here to enter text. | Click here to enter text. |
| Pulse duration | Click here to enter text. | Click here to enter text. |
| Intensity | Click here to enter text. | Click here to enter text. |
| Contrast | Click here to enter text. | Click here to enter text. |
| Other | Click here to enter text. | Click here to enter text. |

|  |  |  |
| --- | --- | --- |
| Laser name |  | |
|  | Expected (first operation) | Fully operational |
| Pulse energy | Click here to enter text. | Click here to enter text. |
| Focal spot | Click here to enter text. | Click here to enter text. |
| Pulse duration | Click here to enter text. | Click here to enter text. |
| Intensity | Click here to enter text. | Click here to enter text. |
| Contrast | Click here to enter text. | Click here to enter text. |
| Other | Click here to enter text. | Click here to enter text. |

X-ray source properties

XFEL

Synchrotron

No X-rays

|  |  |  |
| --- | --- | --- |
| Properties | Expected (first operation) | Fully operational |
| Photon flux density [photons s-1mm-2] | Click here to enter text. | Click here to enter text. |
| Frequency  [Hz] | Click here to enter text. | Click here to enter text. |
| Frequency instability | Click here to enter text. | Click here to enter text. |
| Bunch length  [ps] | Click here to enter text. | Click here to enter text. |
| Energy  [keV] | Click here to enter text. | Click here to enter text. |
| Bandwidth | Click here to enter text. | Click here to enter text. |
| Focal spot size  [µmxµm] | Click here to enter text. | Click here to enter text. |

**Target supply**

Where are your targets produced?

Internal fabrication laboratory (please, fill also section C):  Click here to enter text.%

Collaboration with external target fabrication laboratories: Click here to enter text. %

Purchase: Click here to enter text. %

Other: Click here to enter text. %

Please, specify: Click here to enter text.

**Computational tools**

Do you offer any simulation tool for target optimization

Yes (please, fill also section D)

No

**Target fabrication laboratories**

**Target production capabilities**

A - Available

F - Foreseen

1) Coating/thin film production

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Process/Device | A | F | Materials | Thickness (range) | Process duration (range) | Coated Area | Availability  [hours/month] | Other |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

2) Lithographic techniques

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Process/Device | A | F | Materials | Feature size (range) | Process duration (range) | Processed Area | Availability  [hours/month] | Other |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

Do you have any in-house mask production capabilities?

No  Yes (please, specify): Click here to enter text.

3) Etching techniques

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Process/Device | A | F | Materials | Etchants | Process duration (range) | MaximumProcessed Area | Availability  [hours/month] | Other |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

4) Micromachining

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Process/Device | A | F | Materials | Feature size and resolution | Process duration (range) | Maximum size | Availability  [hours/month] | Other |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

5) Chemical processes

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Process/Device | A | F | Materials | Process duration (range) | Availability  [hours/month] | Other |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

6) Please, list here other available and foreseen fabrication techniques

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Process/Device | A | F | Materials | Process duration (range) | Availability  [hours/month] | Other |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |
| Click here to enter text. |  |  | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

**Target characterization capabilities**

A - Available

F - Foreseen

NA - Not available

Sample morphology/surface quality

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | Available devices | | Foreseen devices | | Not available |
| Device | Hours/month | Device | Hours/month |
| Optical microscope | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| SEM | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| AFM | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| Optical profilometry | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| Other  (please specify) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |

Sample composition, atomic and crystalline structure

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | Available devices | | Foreseen devices | | Not available |
| Device | Hours/month | Device | Hours/month |
| EDS | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| Raman spectroscopy | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| XPS | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| X-ray diffraction | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| X-ray fluorescence | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| TEM | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| RBS | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| Other  (please specify) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |

Film thickness

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Technique | Available devices | | Foreseen devices | | Not available |
| Device | Hours/month | Device | Hours/month |
| Optical reflectometry | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| X-ray reflectometry | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| X-ray diffraction | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| SEM | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| Ellipsometry | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| UV-Vis Spectrometer | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |
| Other  (please specify) | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |  |

Please, list here other available and foreseen characterization techniques

Click here to enter text.

**Computational tools**

Do you offer any computational tool for target optimization

Yes (please, fill also section D)

No

**Section D**

**Computational tools**

Which kind of computational tools do you provide for target optimization?

Hydrodynamic codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Particle In Cell codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Monte Carlo codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Atomic codes

Available

Code name: Click here to enter text.

Foreseen

Not available

Other (please specify) Click here to enter text.

None