

C25F

PROCESSES FOR THE ELECTROLYTIC REMOVAL OF MATERIALS FROM OBJECTS; APPARATUS THEREFOR

Definition statement

This subclass/group covers:

Electrolytic cleaning, degreasing, pickling or descaling

Electrolytic etching or polishing

Polishing or etching using a plasma which is generated at the surface of the workpiece by a voltage applied thereto in an electrolyte

Electrolytic stripping of metallic layers or coatings

Constructional parts, or assemblies thereof, of cells for electrolytic removal of material from objects, servicing or operating

References relevant to classification in this subclass

This subclass/group does not cover:

Working of metal by the action of electric current on a workpiece, electrochemical machining, electrolytic grinding, electro-erosion	B23H
Non-mechanical removal of metallic material from surfaces	C23F
Inhibiting corrosion of metals by anodic or cathodic protection	C23F 13/00
Constructional parts or assemblies thereof, of cells for both electrolytic coating and removal	C25D 17/00
Wafer treatment	H01L 21/00
Processes specially adapted for treatment of semi-conductors or solid state devices, e.g. electrolytic etching	H01L 21/306 , H01L 21/465

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemical cleaning involving a liquid and additional treatment, e.g. electricity	B08B 3/10
Polishing or grinding with abrasive particles	B24B
Lapping machines using both abrasives substances and the application of electrical current	B24B 37/00
After-treatment of articles using an electrical field, without altering their shape or form	B29C 71/0081
Polishing compositions	C09G
Multistep processes for surface treatment of metallic material	C23F 17/00
Measuring using electrical means	G01B 7/00
Analyzing materials with electro-chemical means	G01N 27/00
Non-contact plasma polishing	H01J 37/00

C25F 1/00

Electrolytic cleaning, degreasing, pickling or de-scaling

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Electrolytic cleaning	removing impurities from a surface by electrolytic action
Electrolytic degreasing	removing grease from a surface by electrolytic action
Electrolytic pickling or de-scaling	removing oxide or scale from a surface by electrolytic action
Melt	molten salt or ionic liquid or fused

	bath
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C25F 3/00

Electrolytic etching or polishing

Relationship between large subject matter areas

Methods of polishing or grinding using electric current where the electrolyte comprises abrasive material would be classified in [B24B 37/046](#)

Special rules of classification within this group

An electrolyte specified in a document is classified in [C25F 3/00](#) even when it concerns one of the fields listed under "references" of subclass [C25F](#).

Exception: electrolytes comprising abrasive material are not classified in [C25F 3/00](#).

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Electrolytic etching	dissolving by - electrolytic action or - a plasma which is generated at the surface of the workpiece by a voltage applied to the electrodes in the electrolyte, such that a rough surface is obtained
Electrolytic polishing	dissolving by - electrolytic action or - by a plasma which is generated at the surface of the workpiece by a voltage applied to the electrodes in the electrolyte, such that a smooth surface is obtained

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of semiconducting materials

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Semiconducting material	the material as such, not a workpiece which is a semiconductor (e.g. a wafer)
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C25F 3/14

locally

Definition statement

This subclass/group covers:

Locally electrolytic etching where the portions to be etched are determined only by a mask or a template

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Locally	when the portion(s) to be etched or polished is/are determined by a mask or a template
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C25F 3/30

of semiconducting materials

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Semiconducting material	the material as such, not a workpiece which is a semiconductor (e.g. a wafer)
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C25F 5/00

Electrolytic stripping of metallic layers or coatings

Definition statement

This subclass/group covers:

Removing an entire layer or coating, even when this layer or coating is already partially damaged (e.g. removing NiCrAlY from a turbine blade to be reworked)

C25F 7/00

Constructional parts, or assemblies thereof, of cells for electrolytic removal of materials from objects (for both electrolytic coating and removal C25D); Servicing or operating