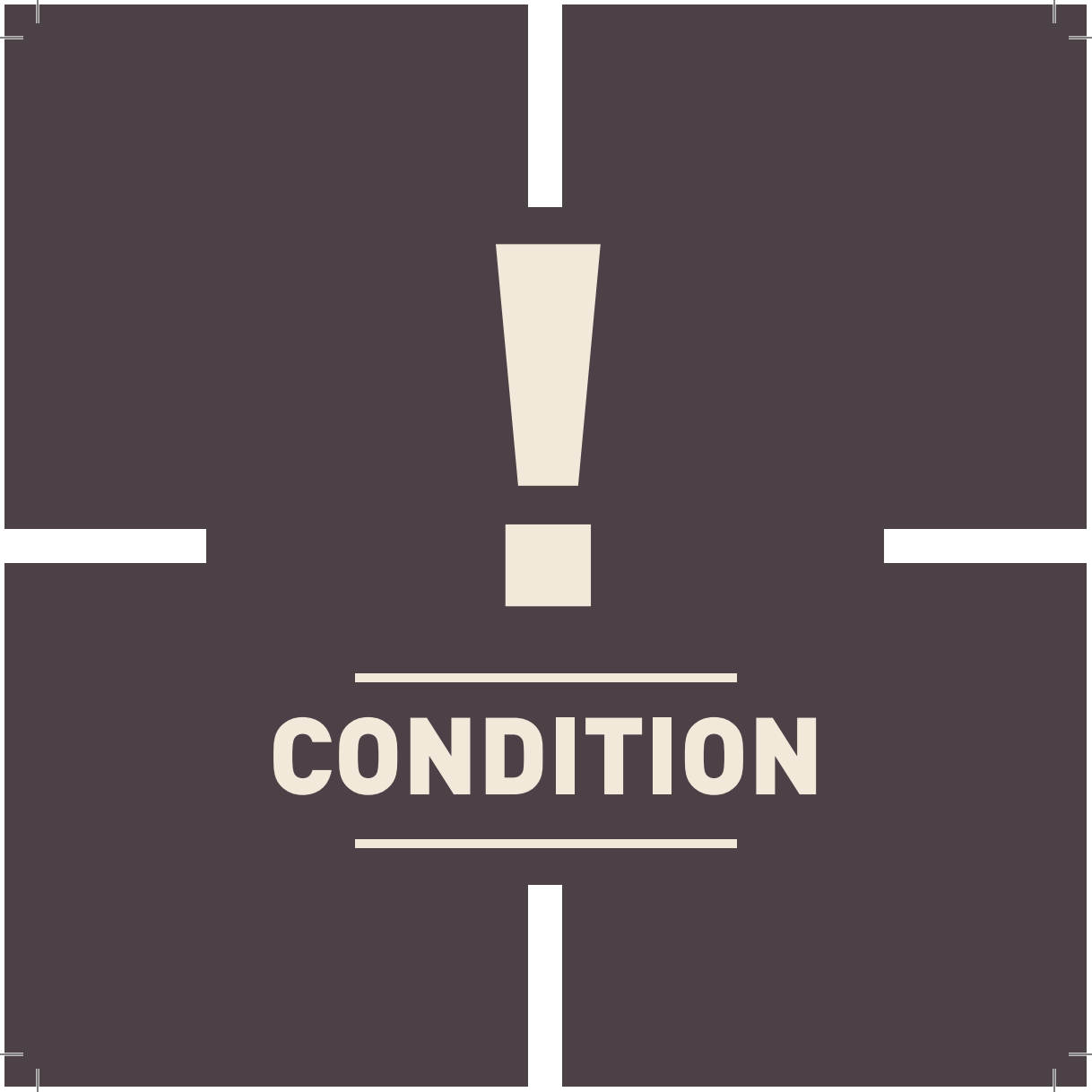

VITESSE
FLUX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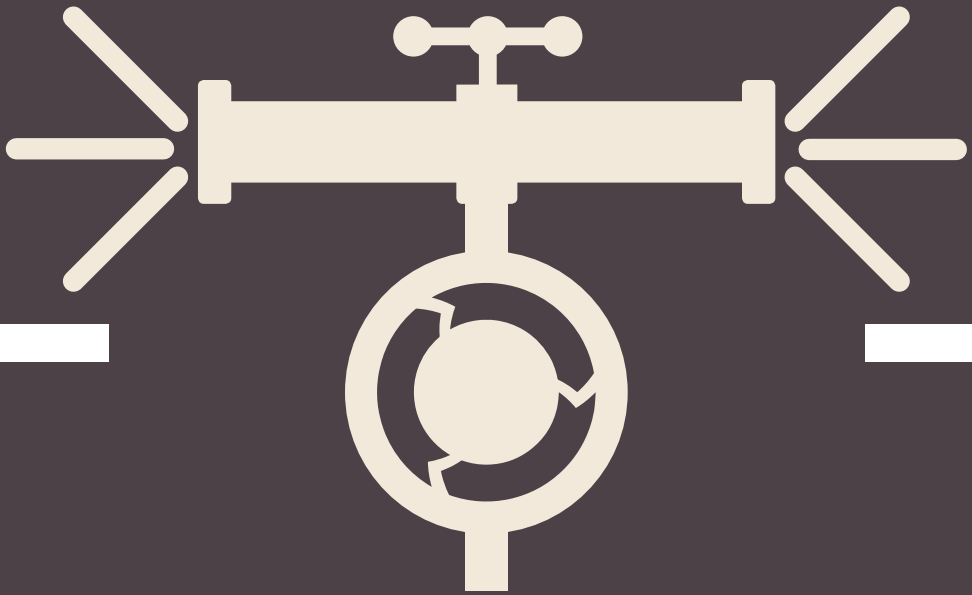
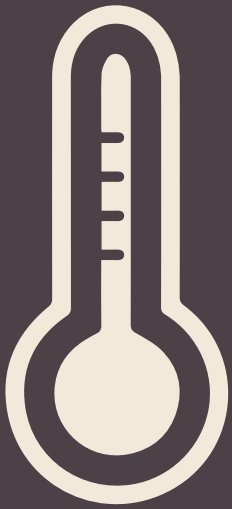
CONDITION

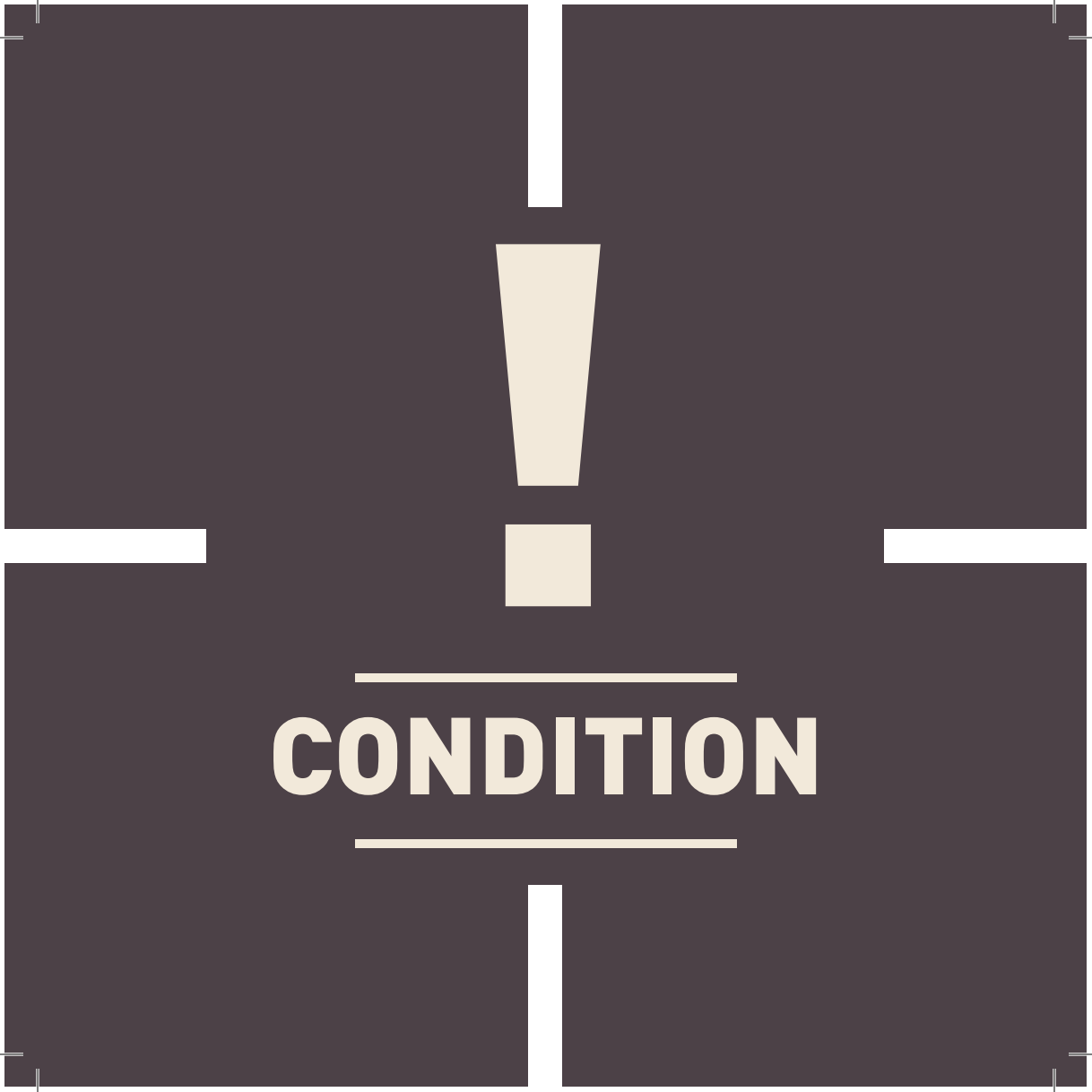


RÉACTEUR À MICROMÉLANGE RAPIDE

OUTIL



TEMPÉRATURE AMBIANTE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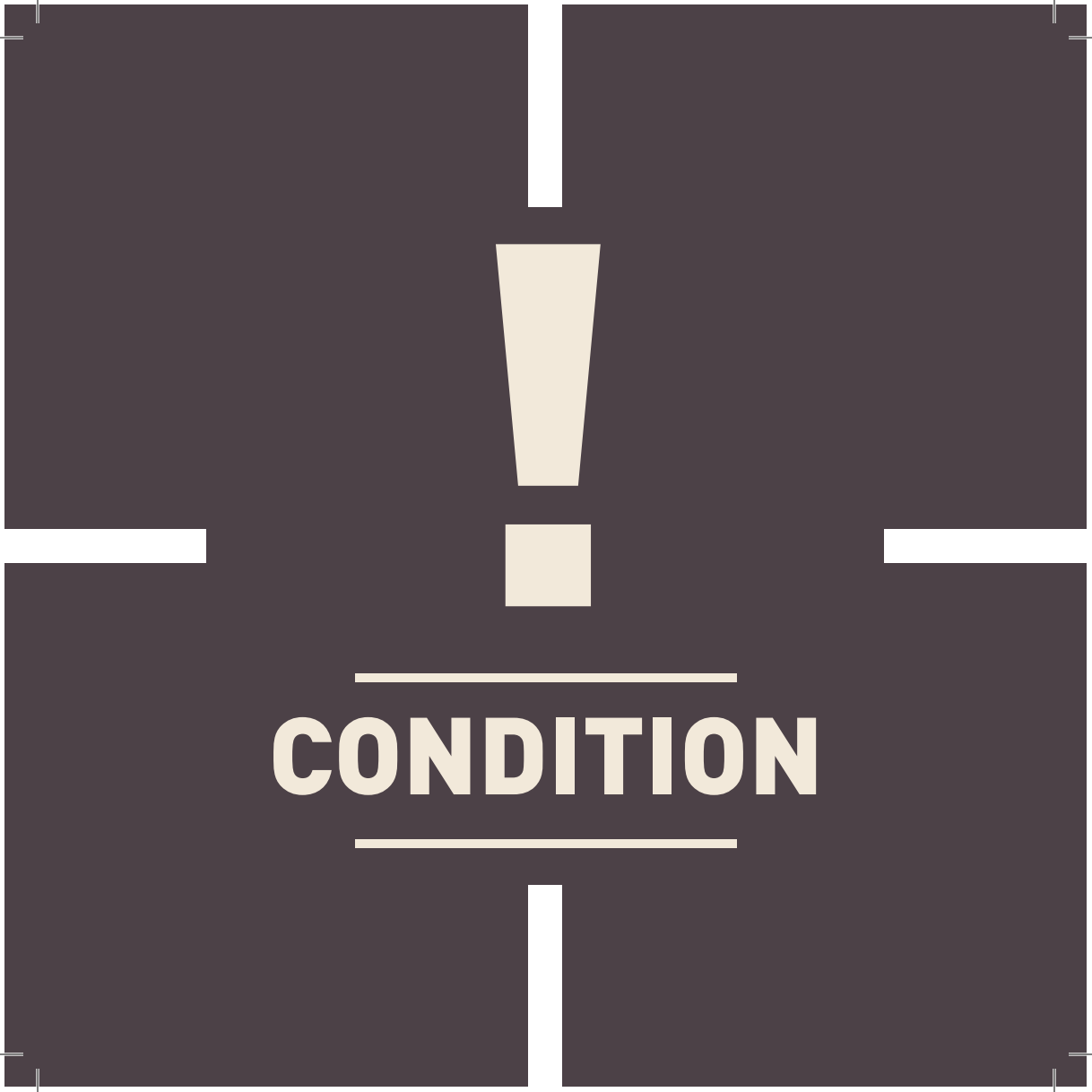
CONDITION

AIMANT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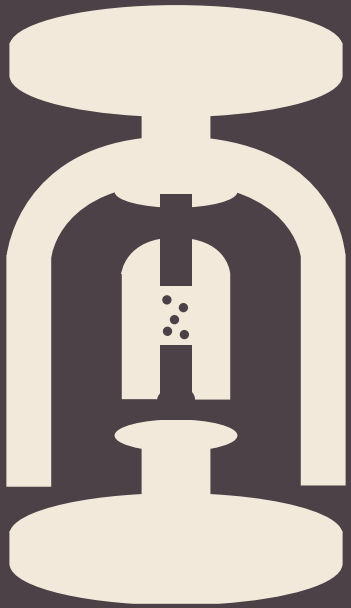
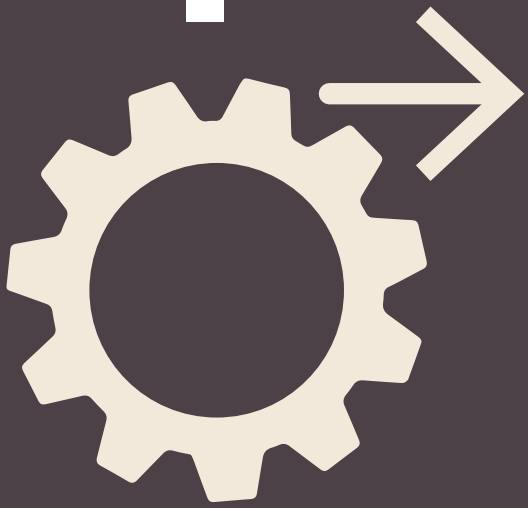


FRITTAGE

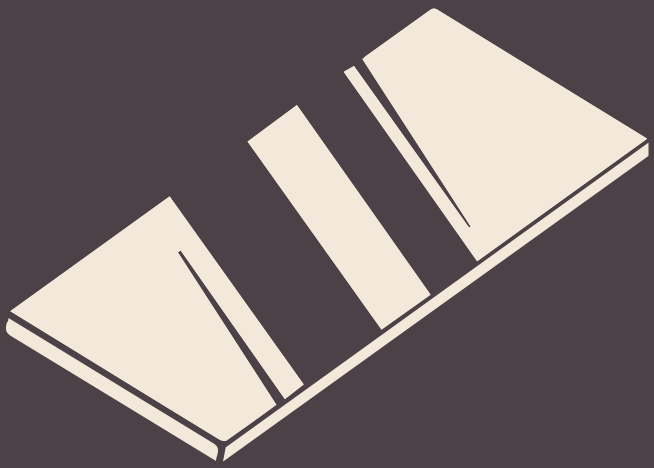


ACTION

BOITE À GANTS

atmosphère contrôlée

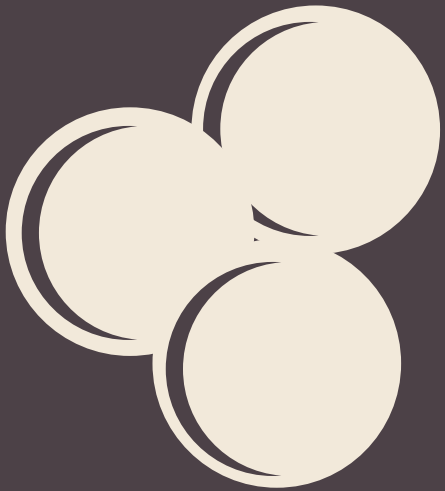
OUTIL



SUBSTRAT

lame de verre

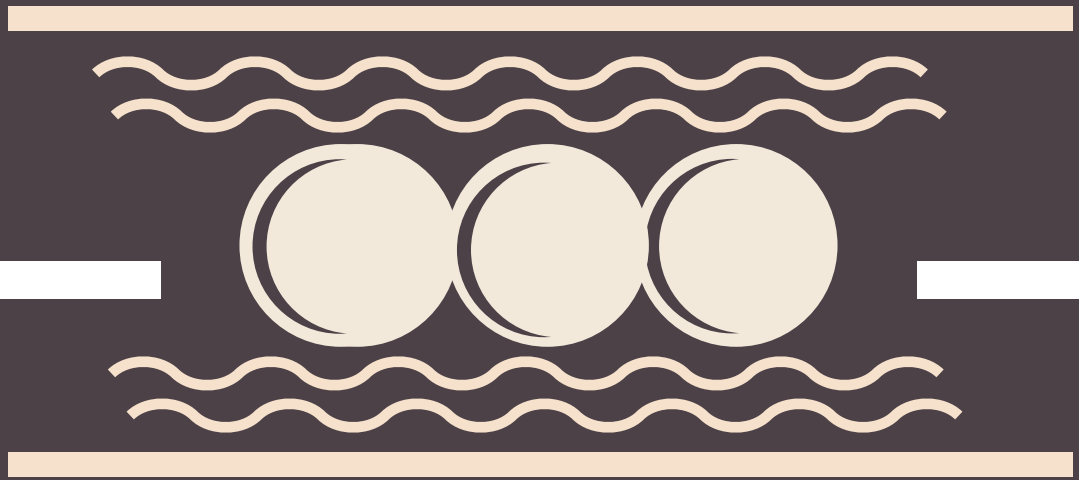
OUTIL



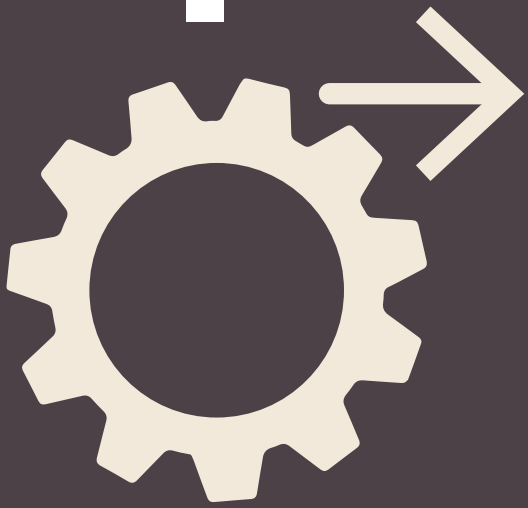
SUBSTRAT

billes de verre

OUTIL

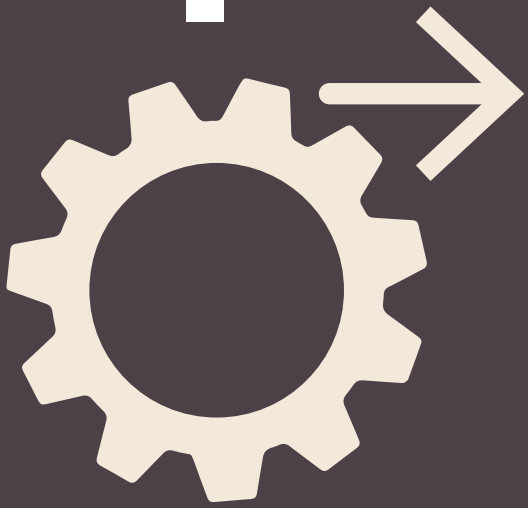


DIP COATING

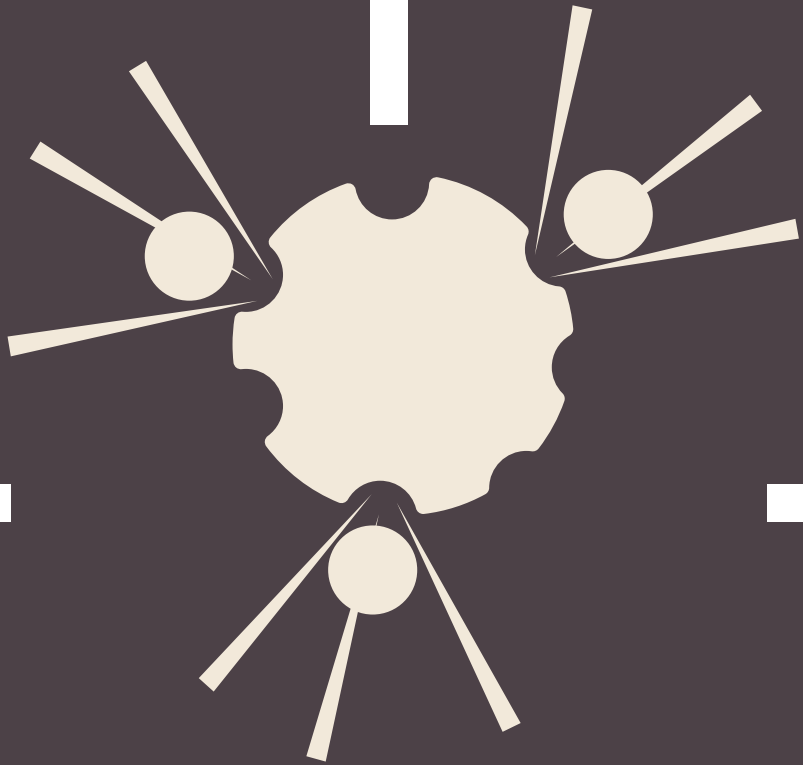


ACTION

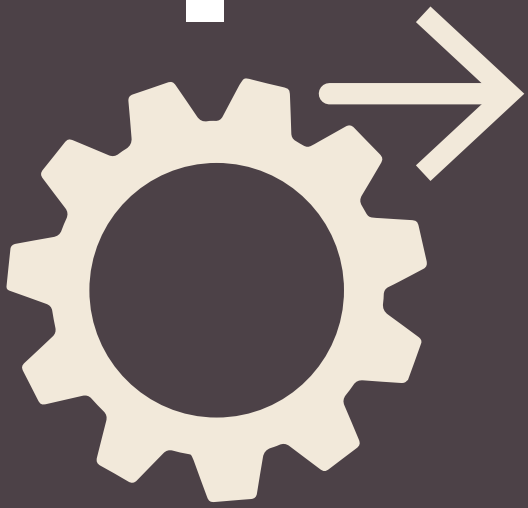
DIP COATING



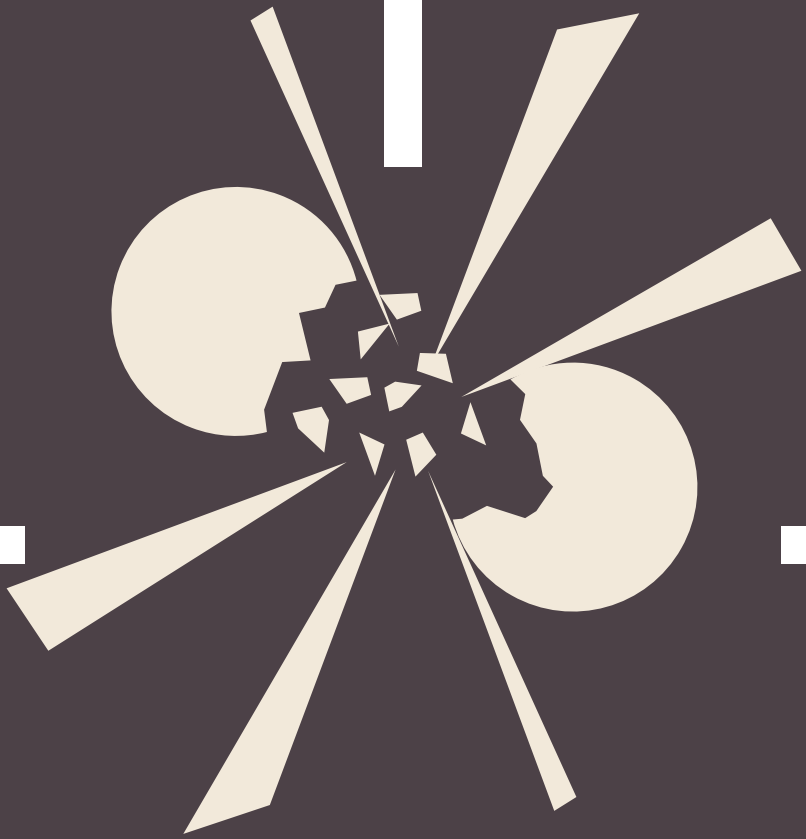
ACTION



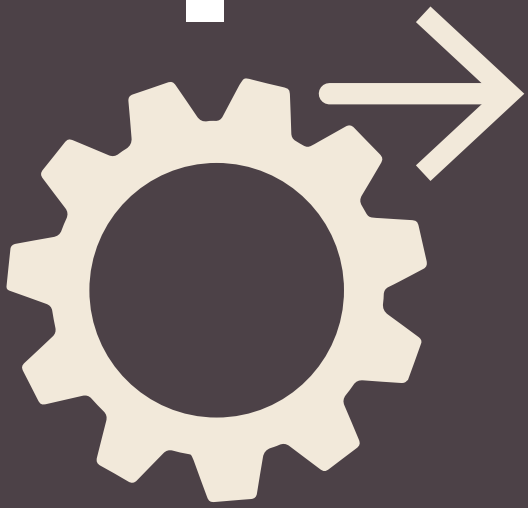
IMPACT



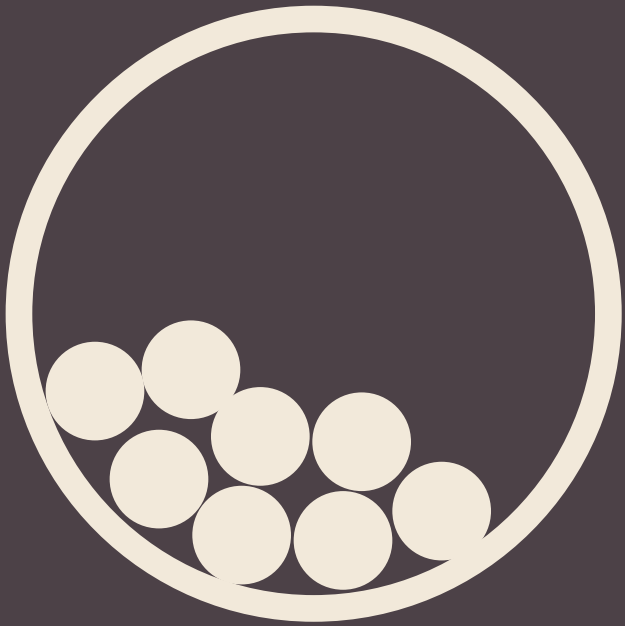
ACTION



FRAGMENTATION

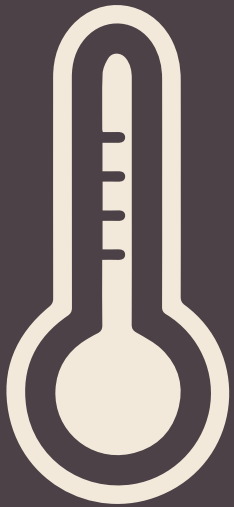


ACTION

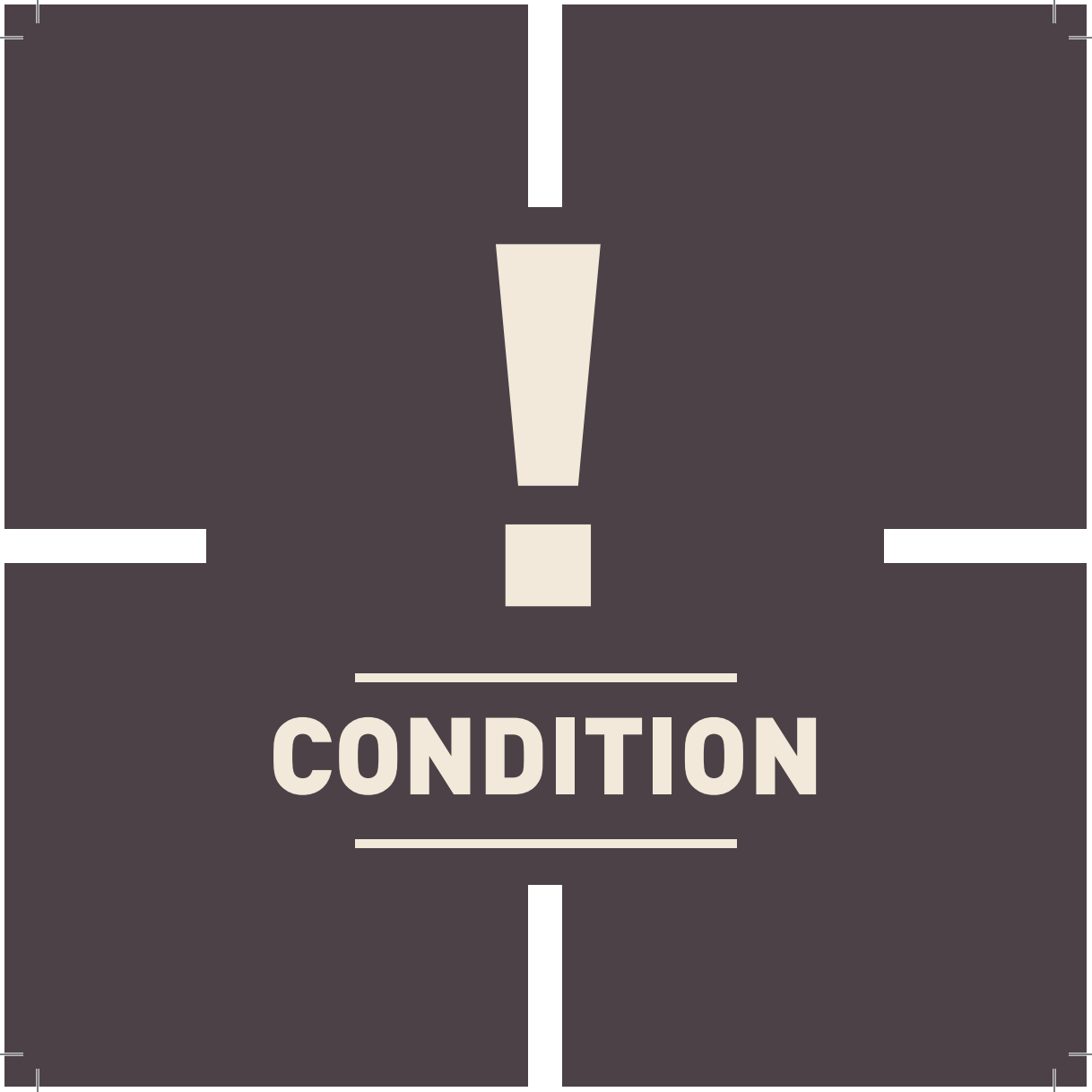


BROYEUR

OUTIL



HAUTE TEMPÉRATURE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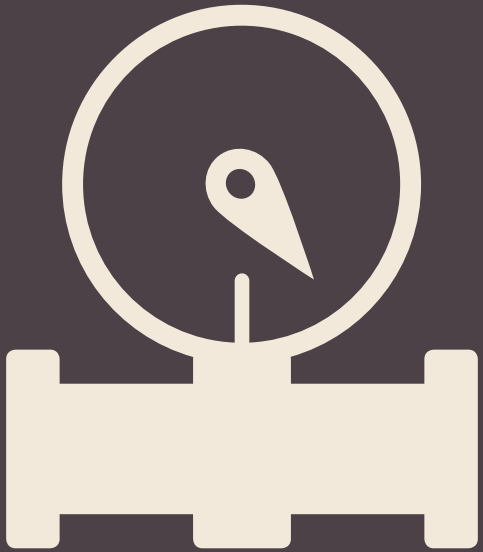
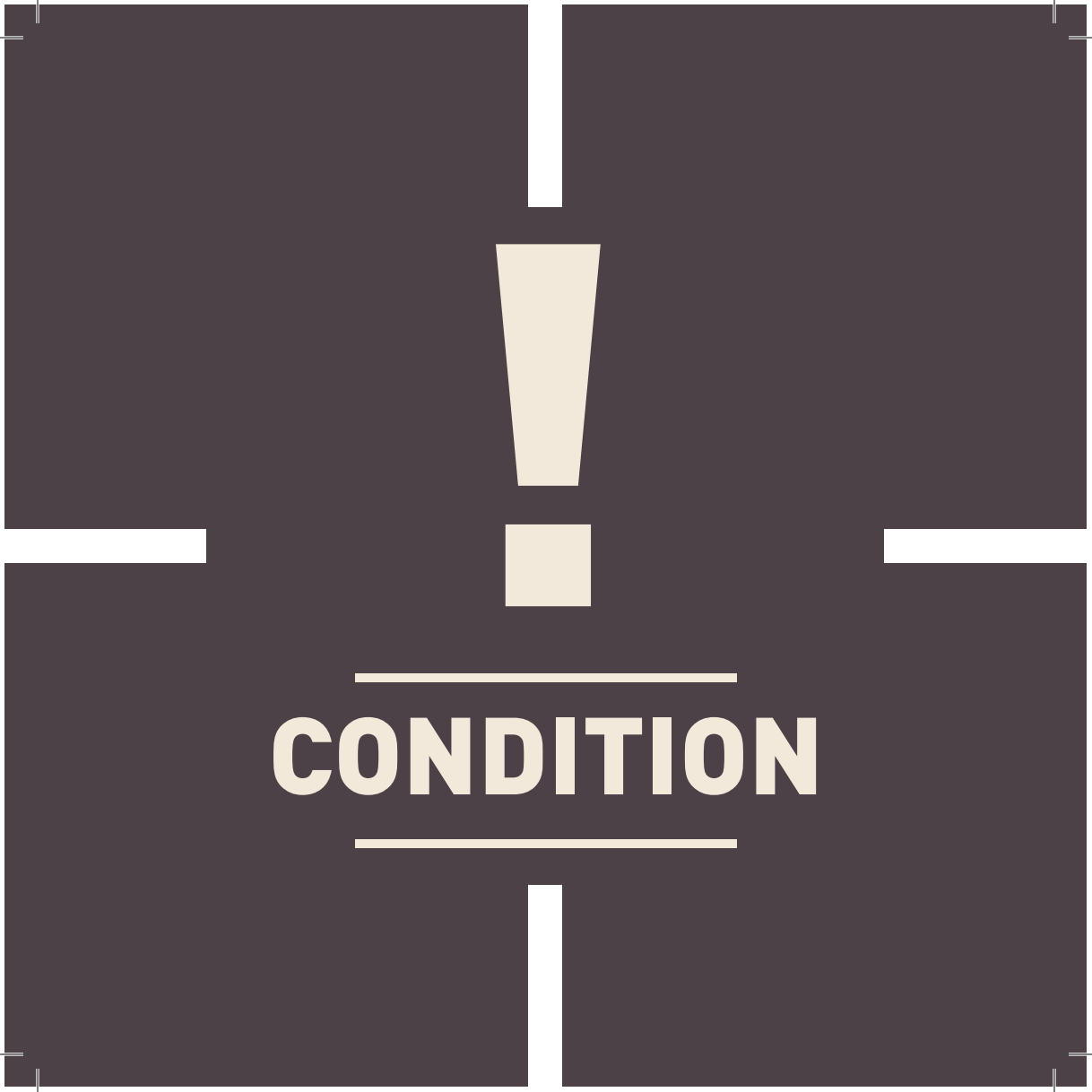
CONDITION



HAUTE
PRESSION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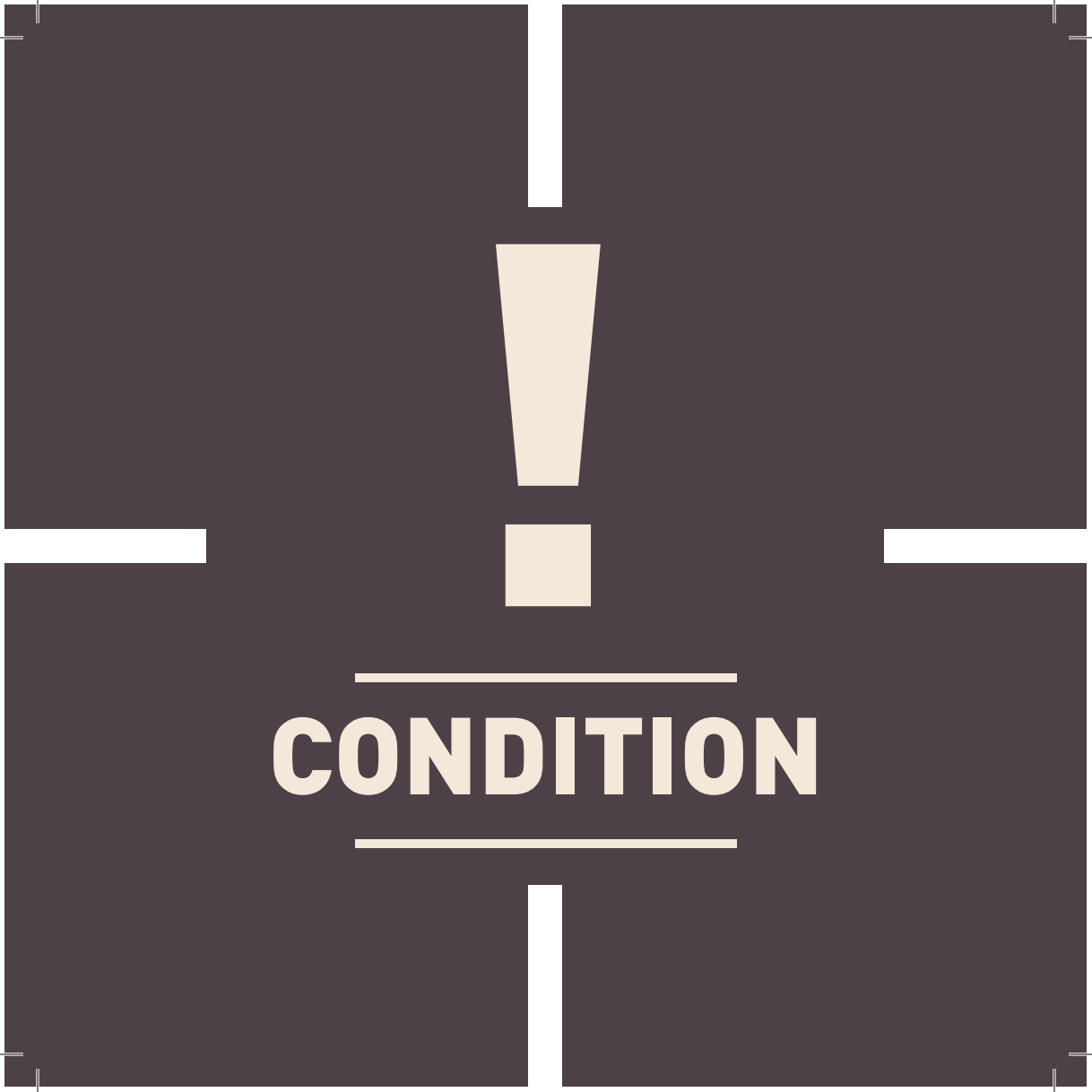
CONDITION

VARIATION DE PARAMÈTRE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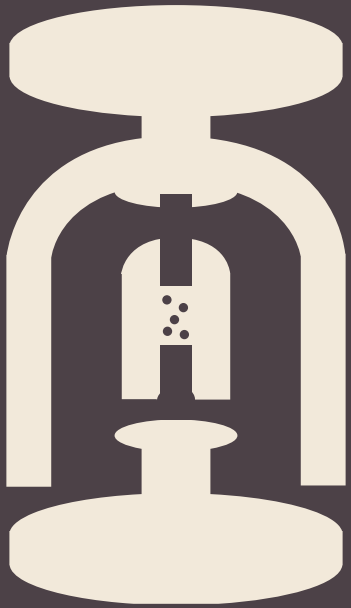
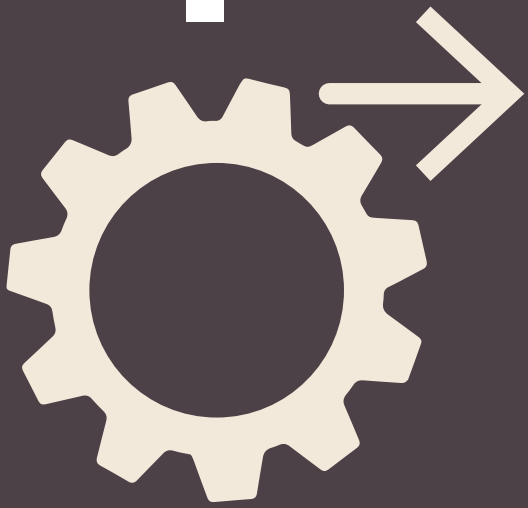
CONDITION



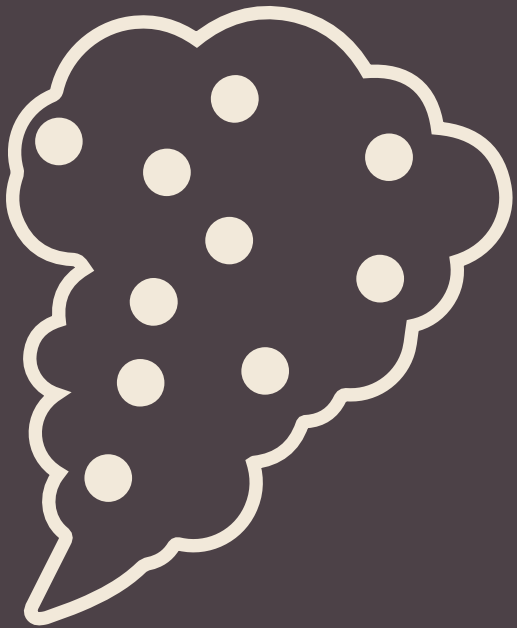
FRITTAGE



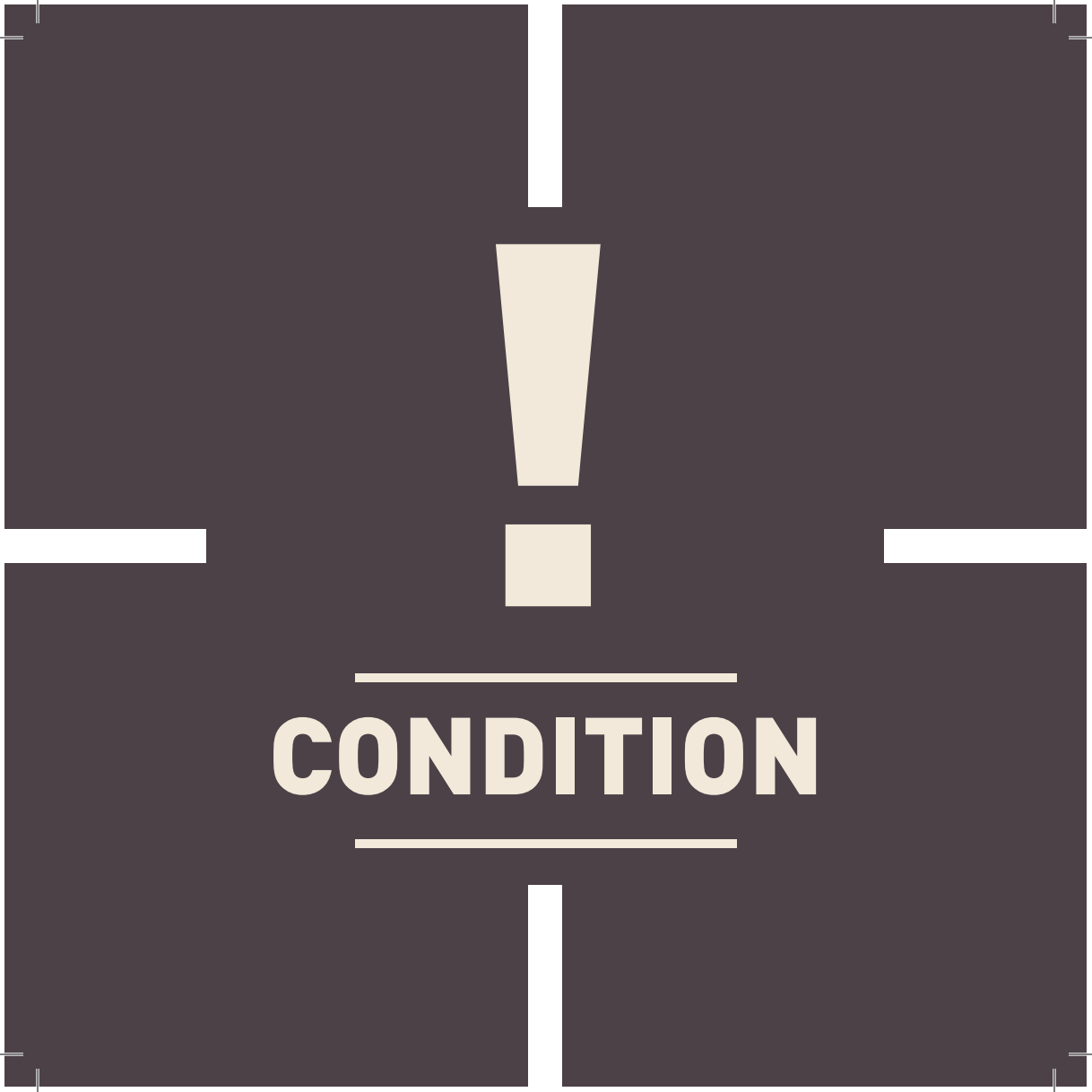
ACTION

Ar

N_2



GAZ NEUTRE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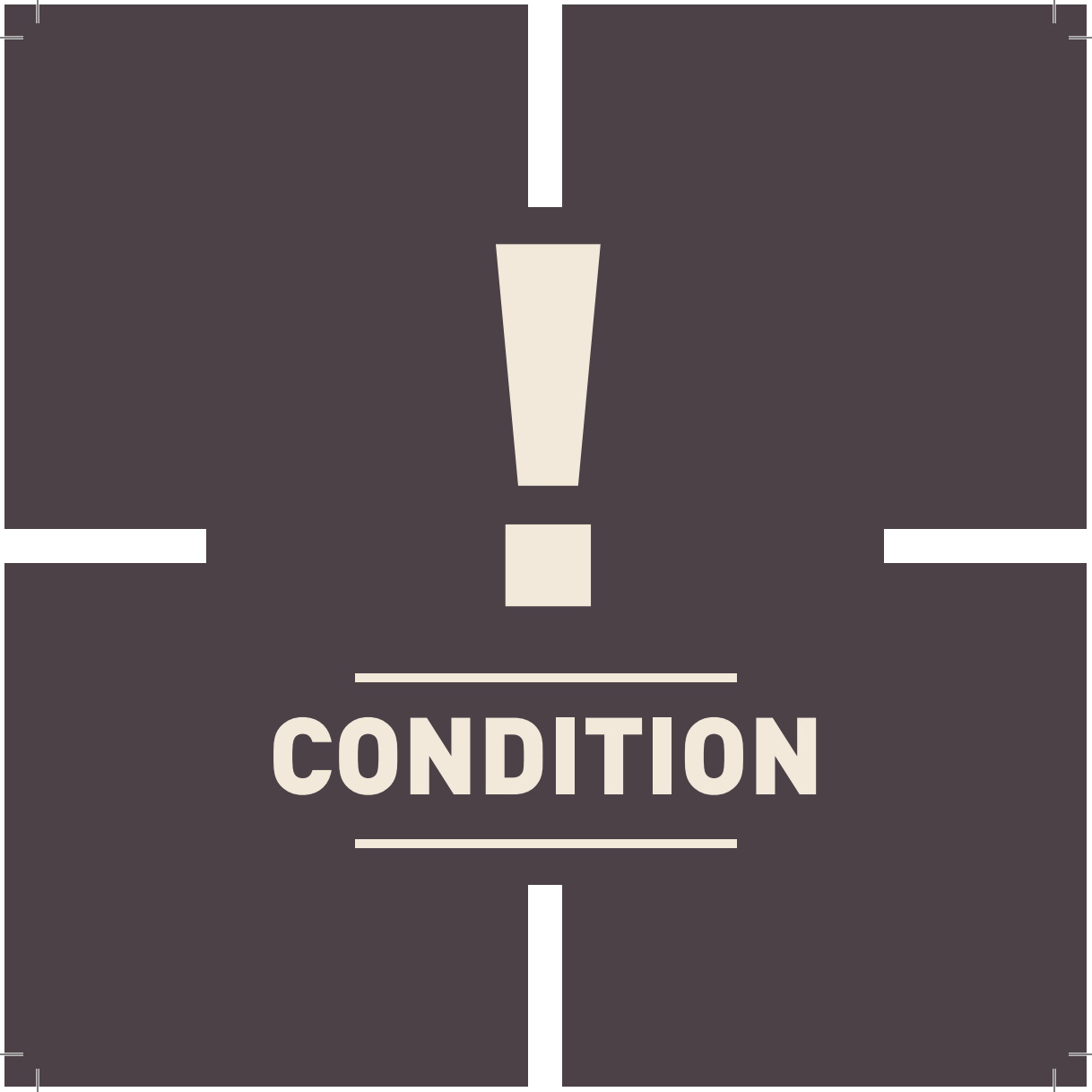
CONDITION

AIMANT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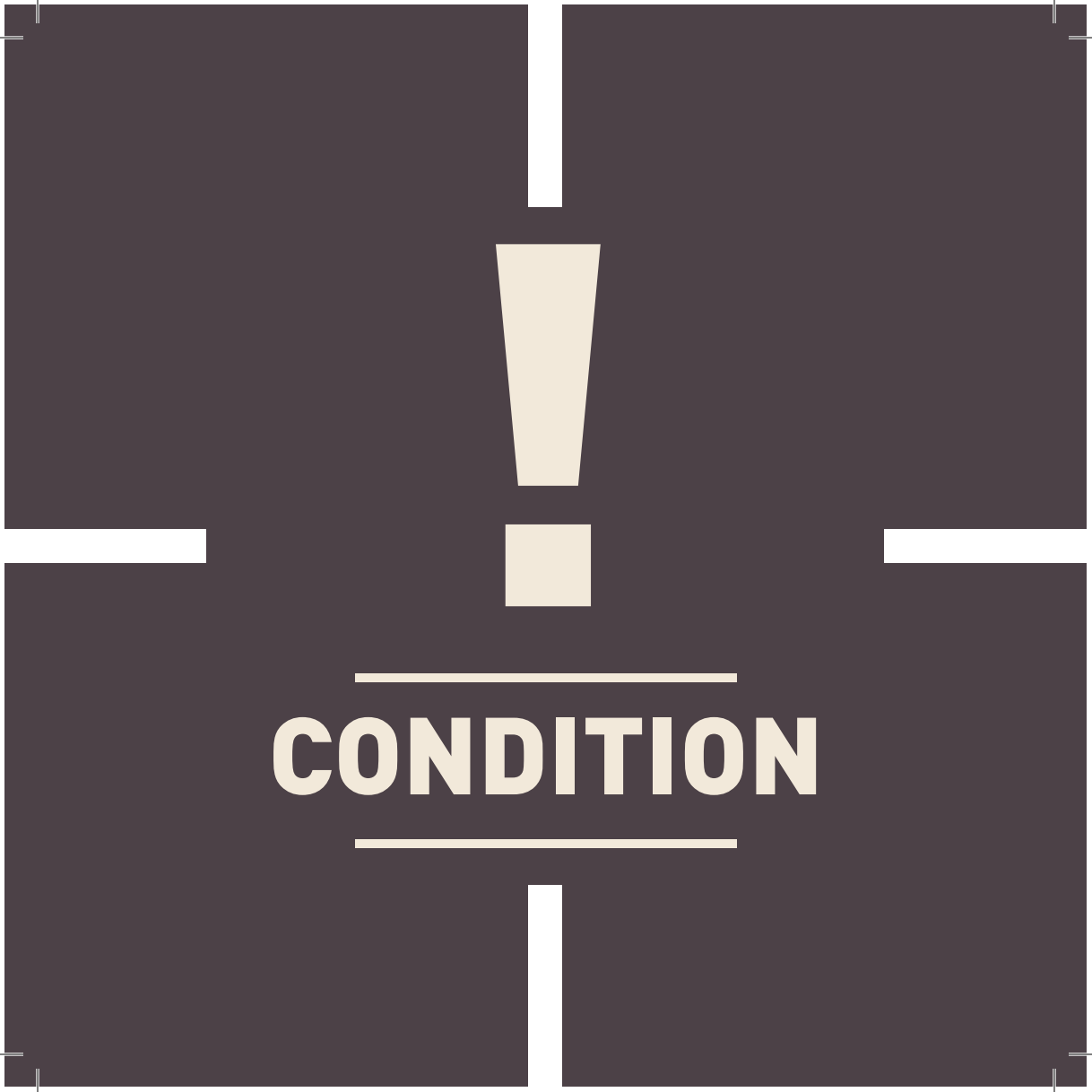
CONDITION

PLASMA

(gaz ionisé)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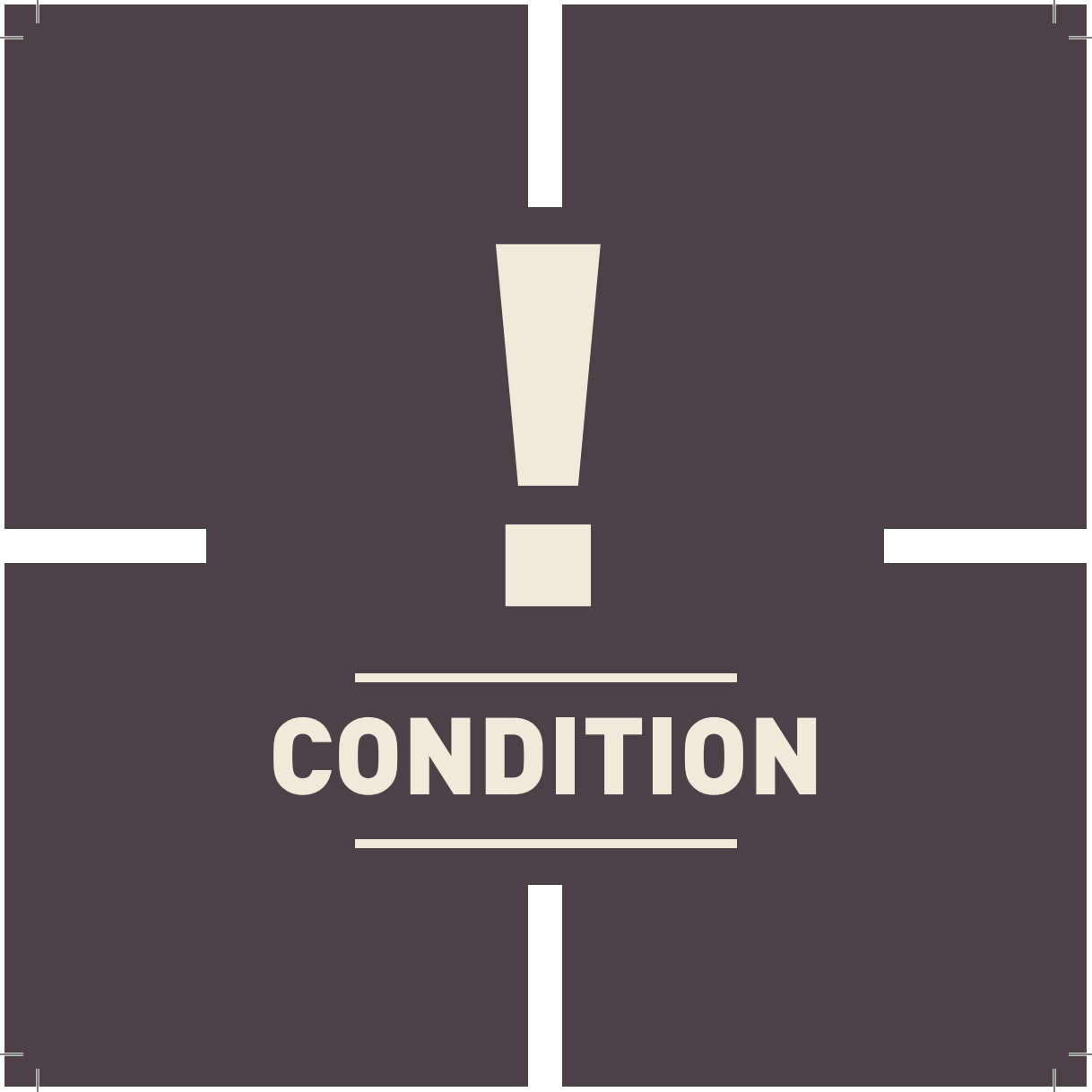
CONDITION

MICROS-ONDES

(entre 1000 et 4000 watts)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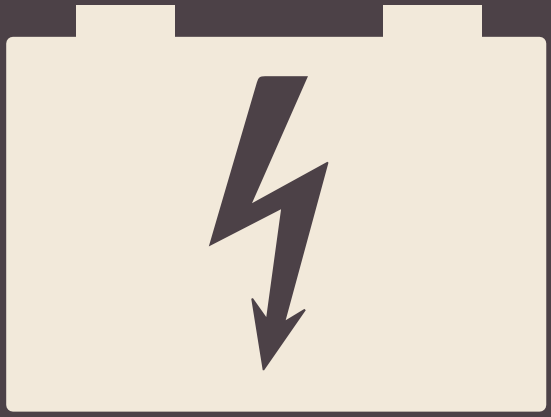
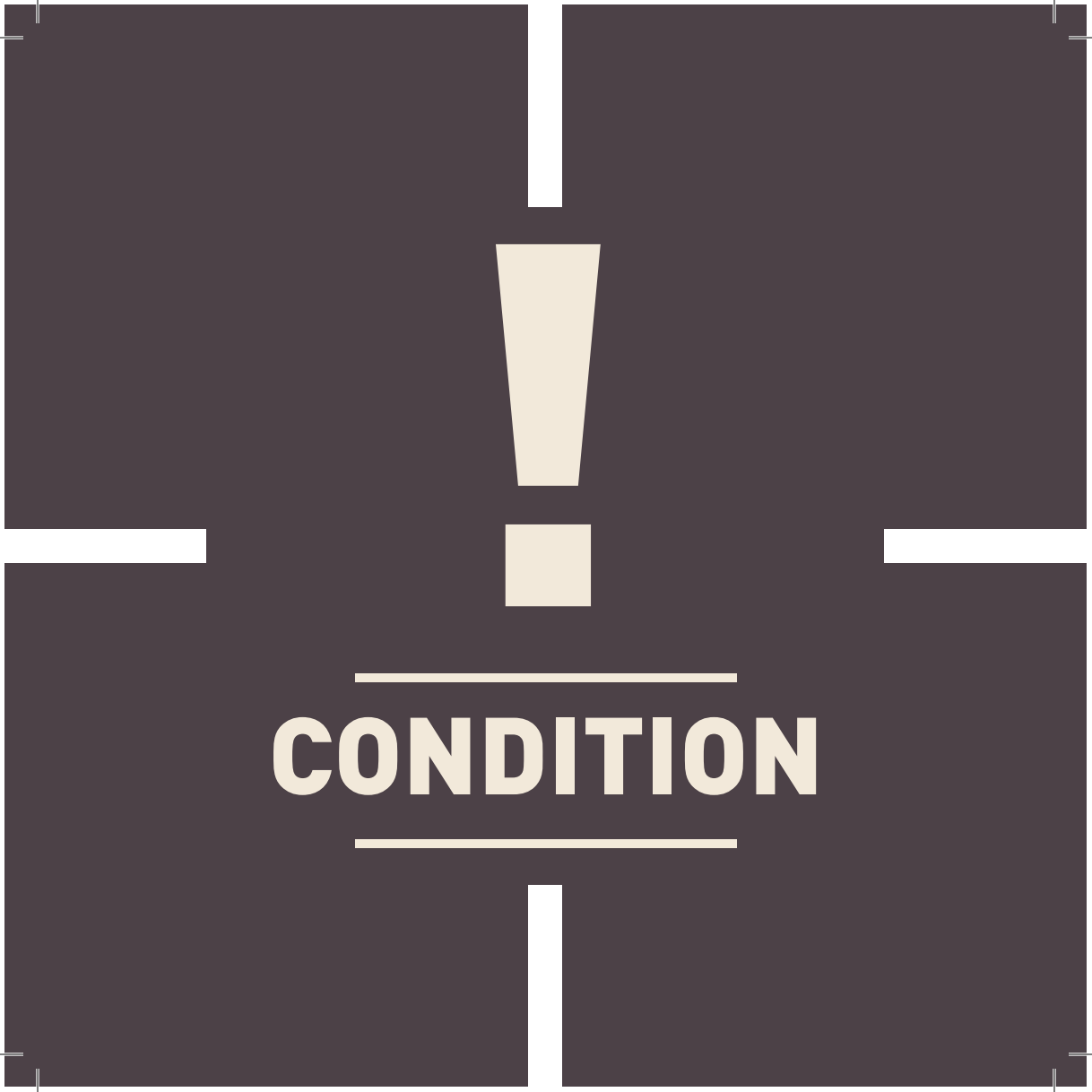
CONDITION



TENSION ÉLECTRIQUE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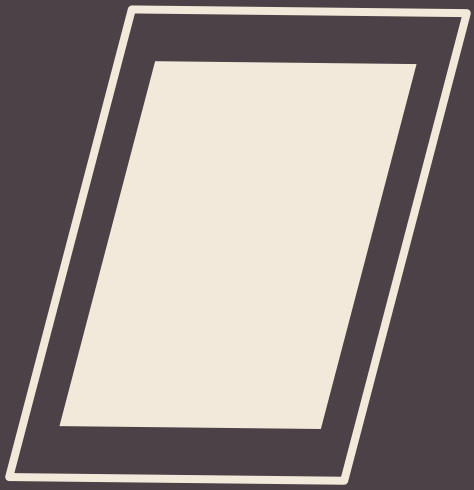
CONDITION

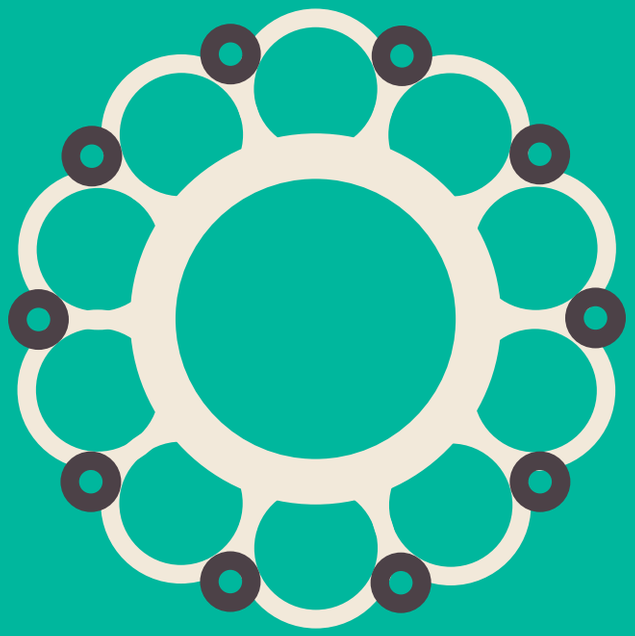


SUBSTRAT

(solide)

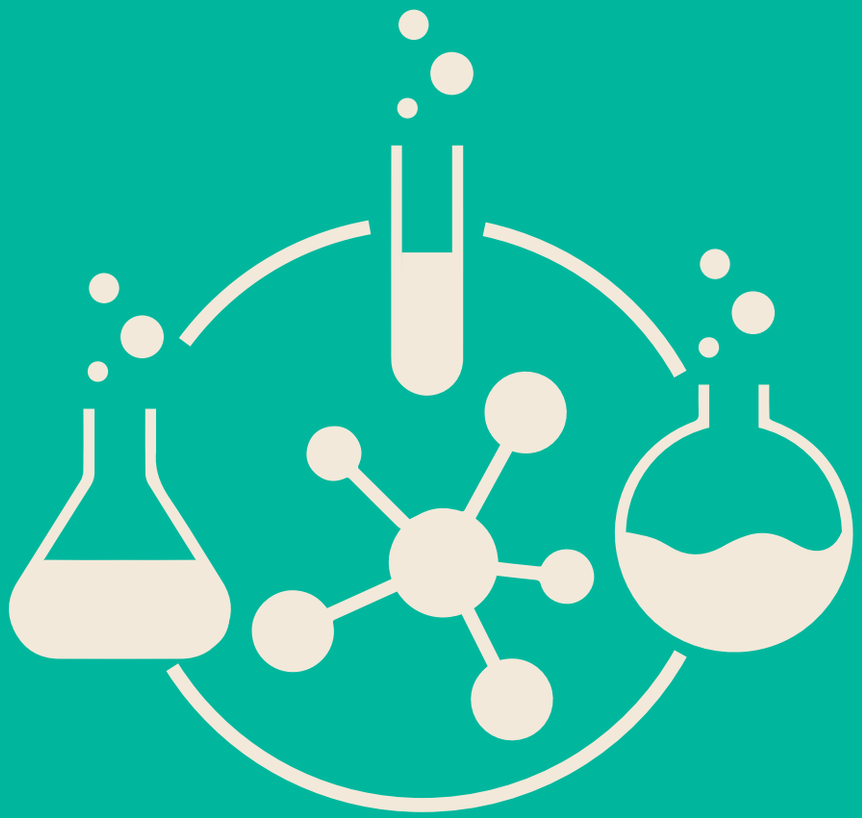
OUTIL

MINOS



Matériaux inorganiques
et Nanostructures

PROCÉDÉS CHIMIQUES DE FABRICATION DE NANOSTRUCTURES

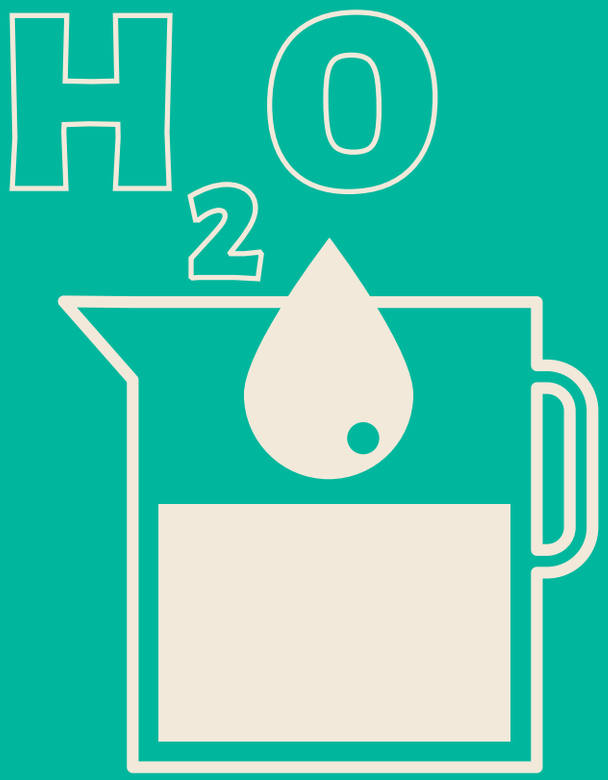


Fabrique des matériaux aux propriétés utiles à la transition écologique (dépollution de l'eau ou de l'air)

SOLUTION D'OXYDE MÉTALLIQUE

Oxyde de titane

50 ml



SOLUTION EN MILIEU AQUEUX

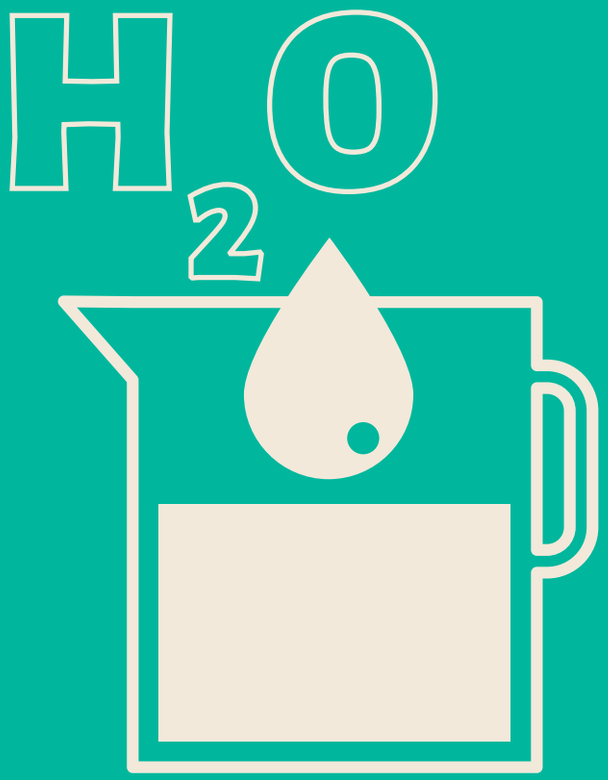
Eau

50 ml

SOLUTION D'OXYDE MÉTALLIQUE

Oxyde de titane

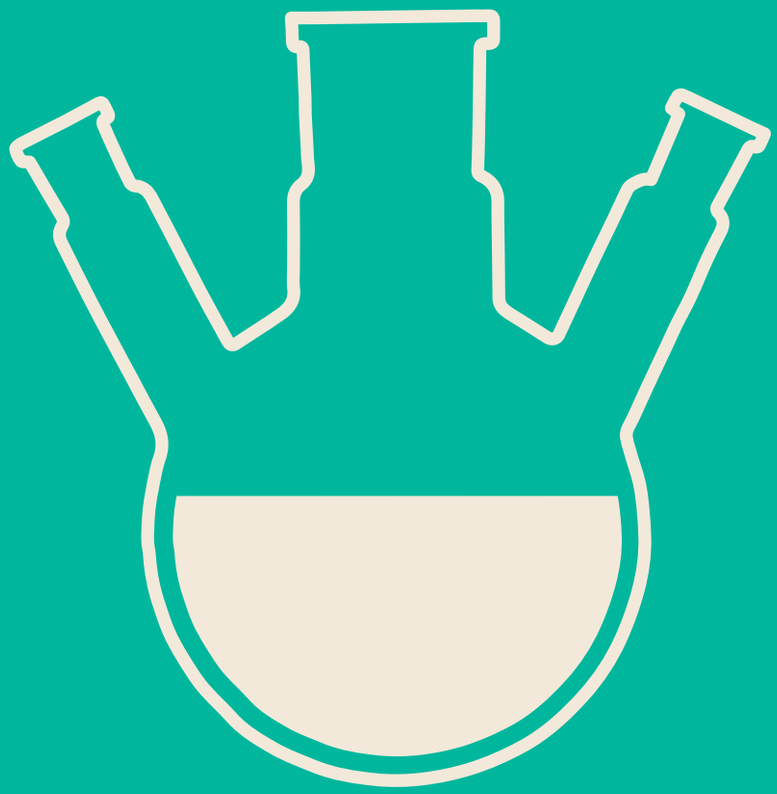
50 ml



SOLUTION EN MILIEU AQUEUX

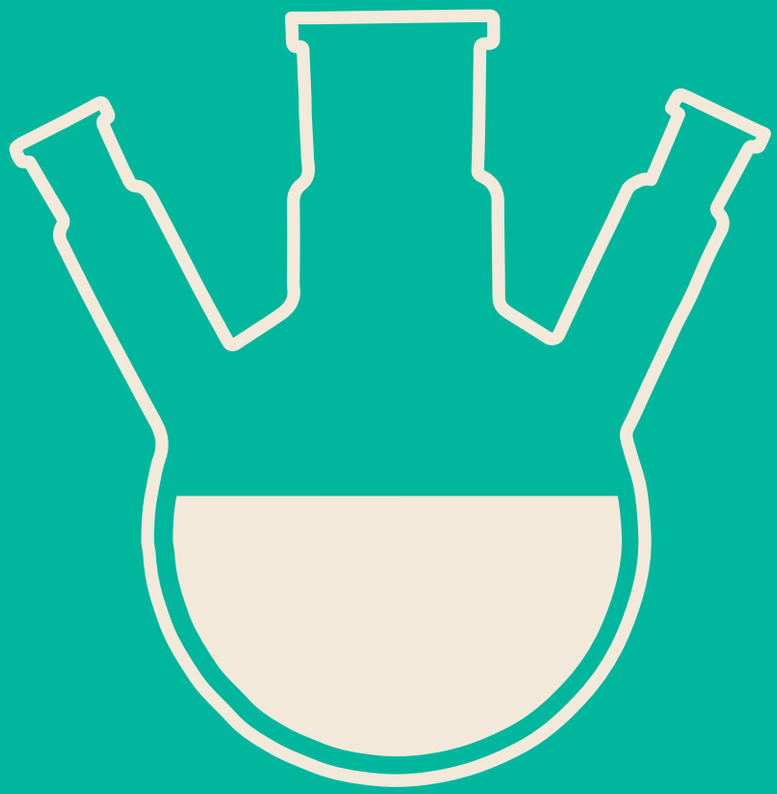
Eau

50 ml



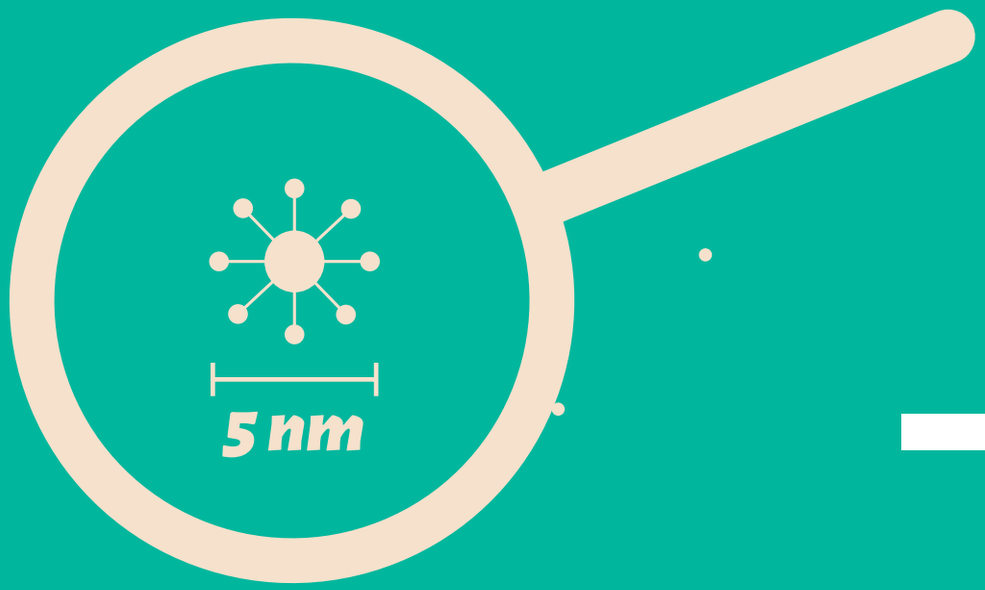
BALLON TRICOL

Synthèse en milieu polyol



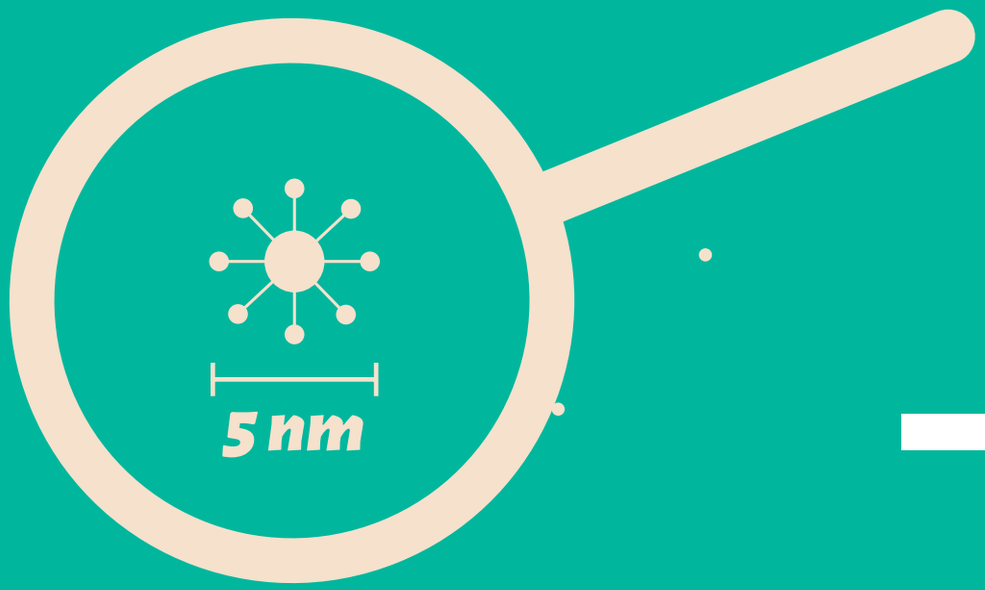
BALLON TRICOL

Synthèse en milieu polyol



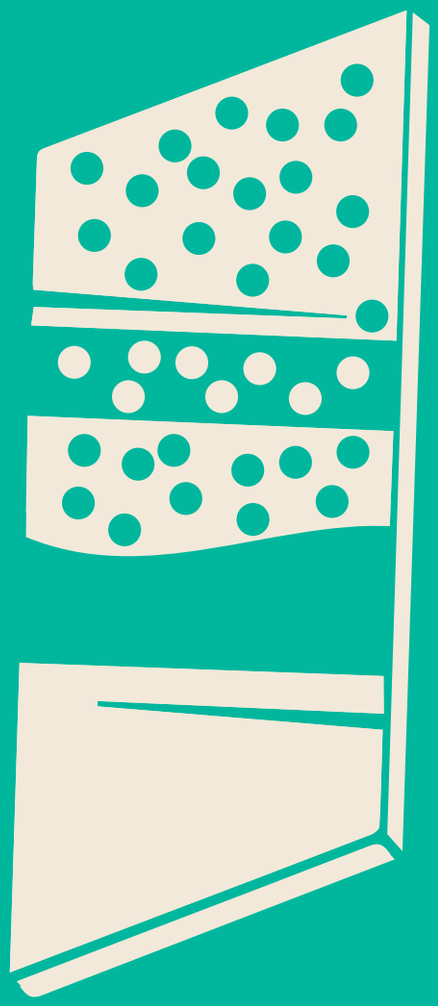
SOLUTION
QUI CONTIENT DES NANOPARTICULES EN SUSPENSION

100 ml



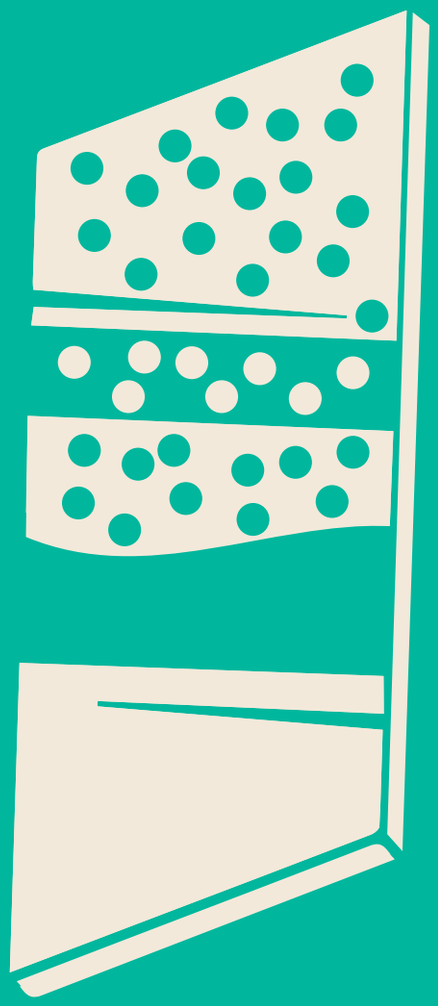
SOLUTION
QUI CONTIENT DES NANOPARTICULES EN SUSPENSION

100 ml



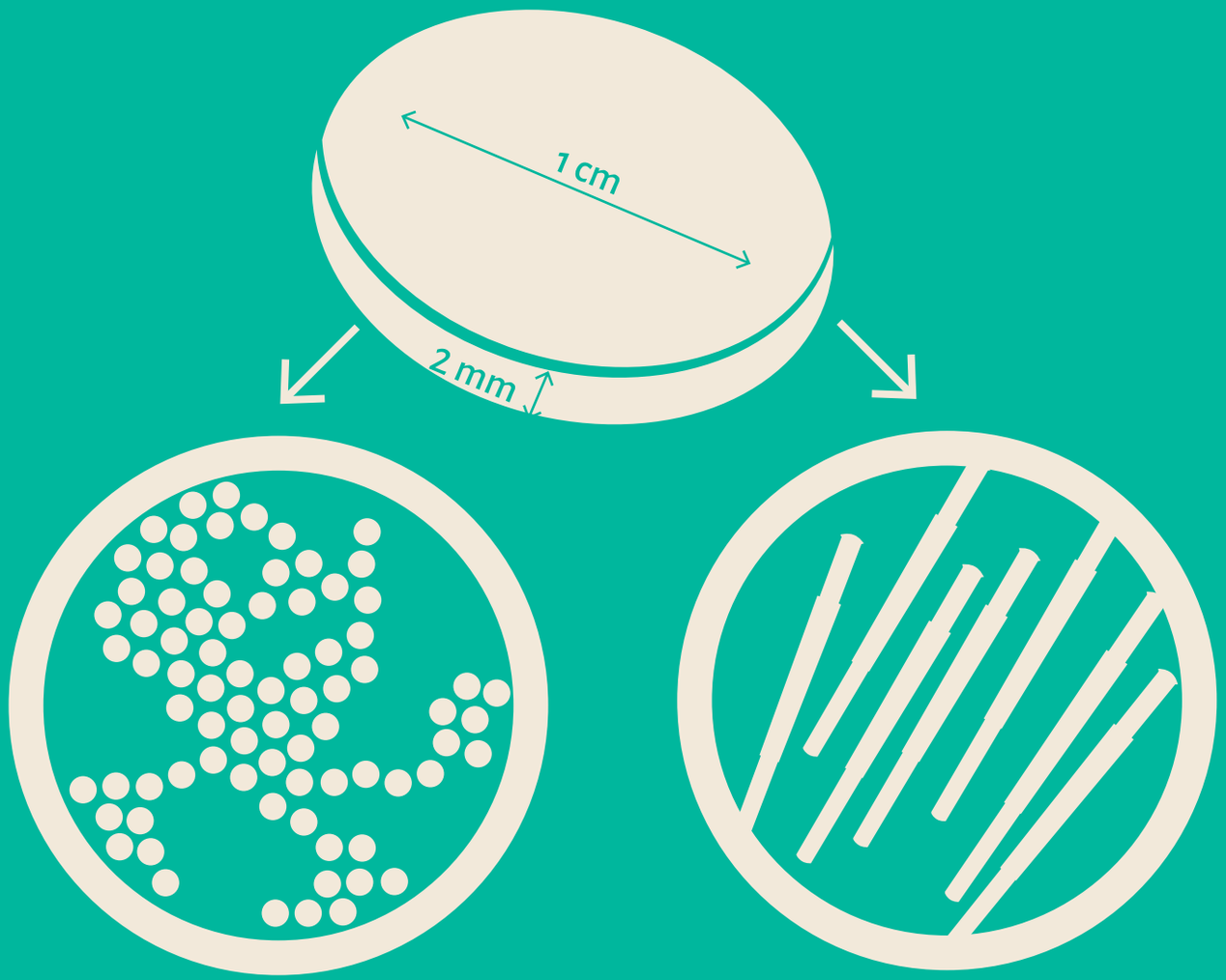
NANOSTRUCTURE

Couche mince



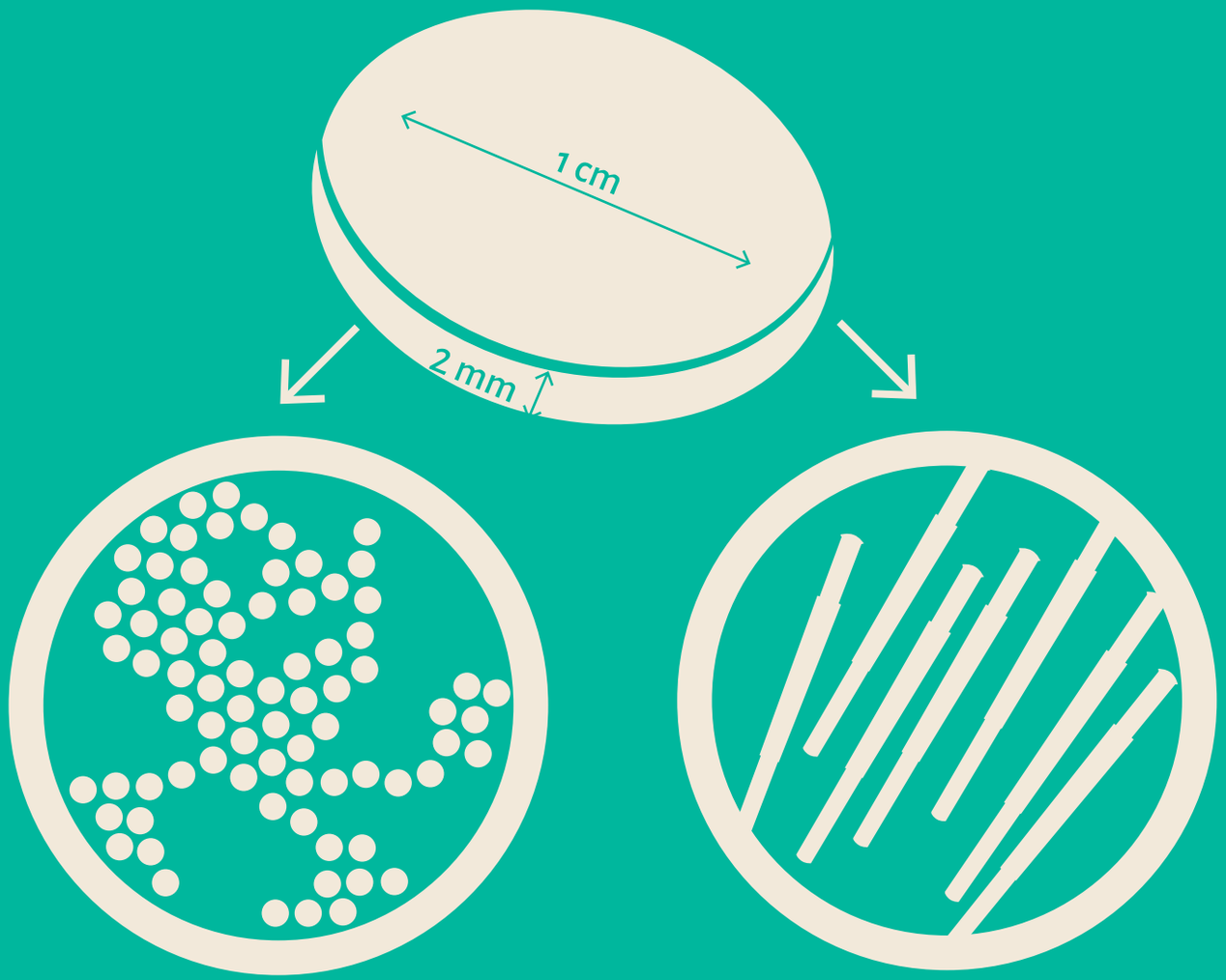
NANOSTRUCTURE

Couche mince



CÉRAMIQUES NANOSTRUCTURÉES

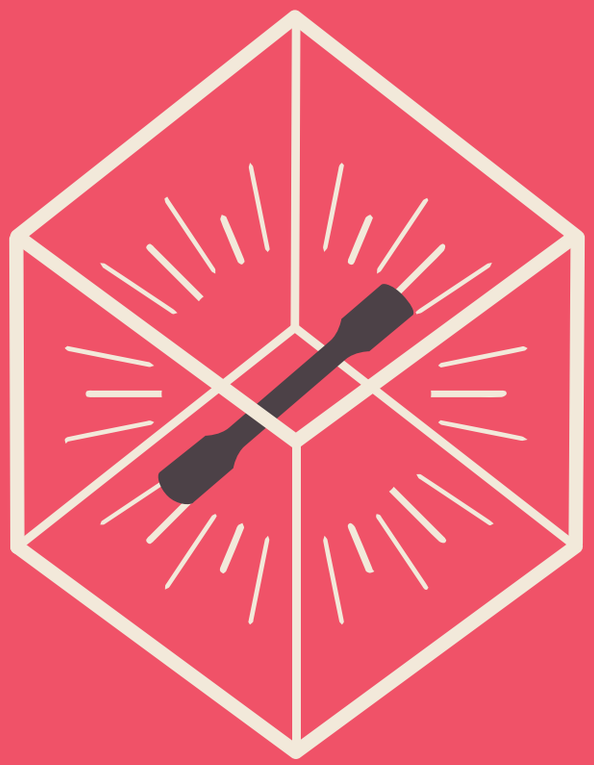
Agglomérat de nanobilles ou nano aiguilles



CÉRAMIQUES NANOSTRUCTURÉES

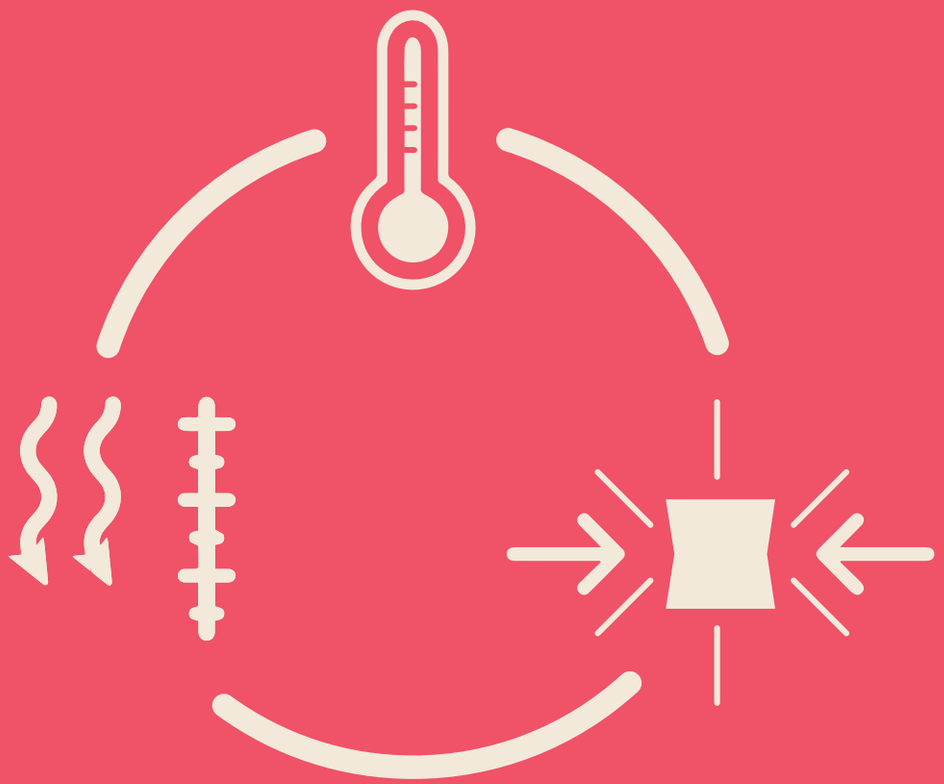
Agglomérat de nanobilles ou nano aiguilles

MECAMETA



Mécanique et Métallurgie des Matériaux

PROCÉDÉS HAUTES PRESSIONS ET HAUTES TEMPÉRATURES



Élaborer des matériaux aux propriétés mécaniques (résistance mécanique, déformabilité, légèreté)

micromètre

Ti

Ni

W

Al

POUDRE MÉTALLIQUE

Titane, Nickel, Tungstène, Aluminium

micromètre

Ti

Ni

W

Al

POUDRE MÉTALLIQUE

Titane, Nickel, Tungstène, Aluminium

Ti

nanomètre

Ni

Al

W

POUDRE MÉTALLIQUE

Titane, Nickel, Tungstène, Aluminium

Ti

nanomètre

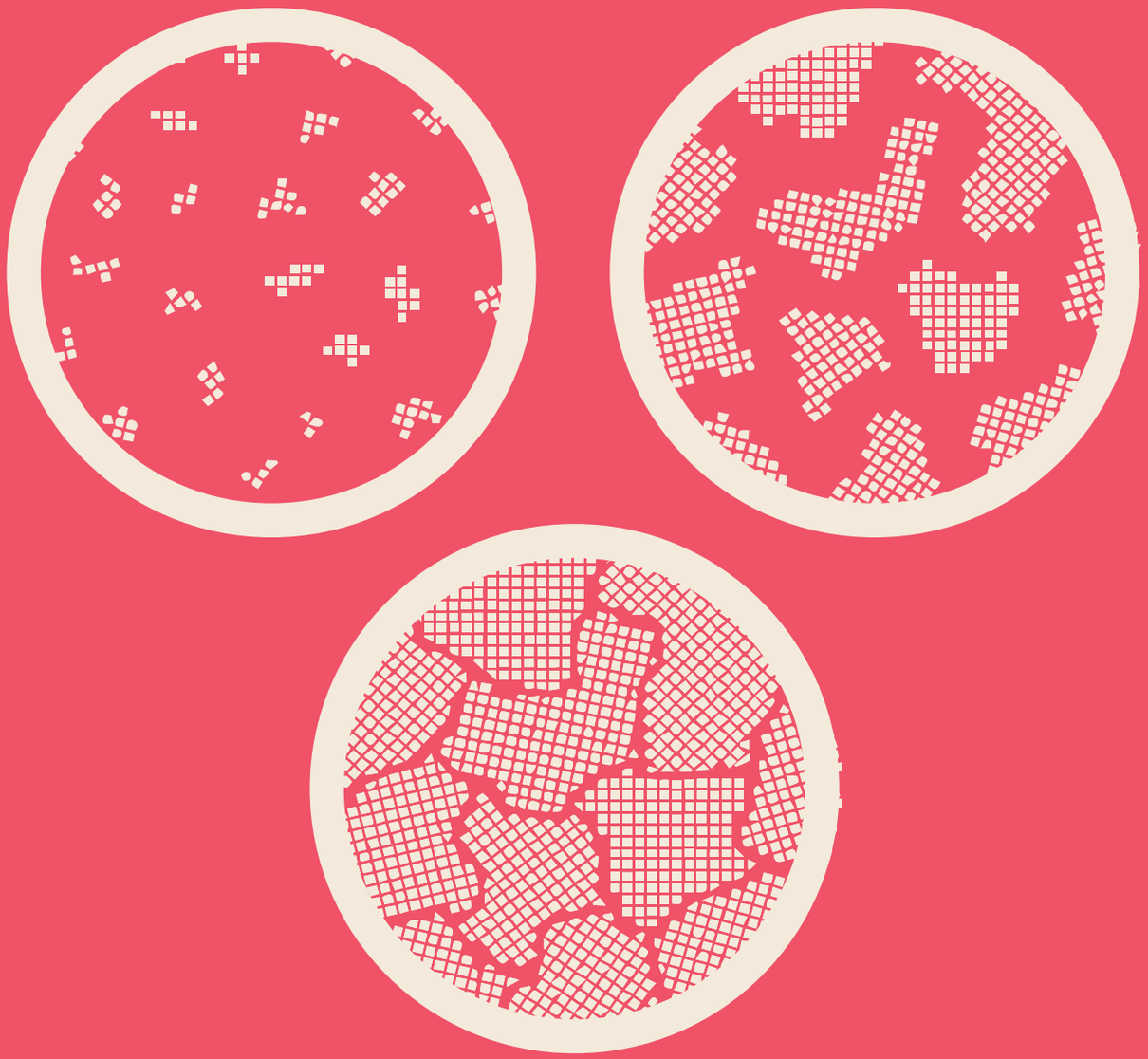
Ni

Al

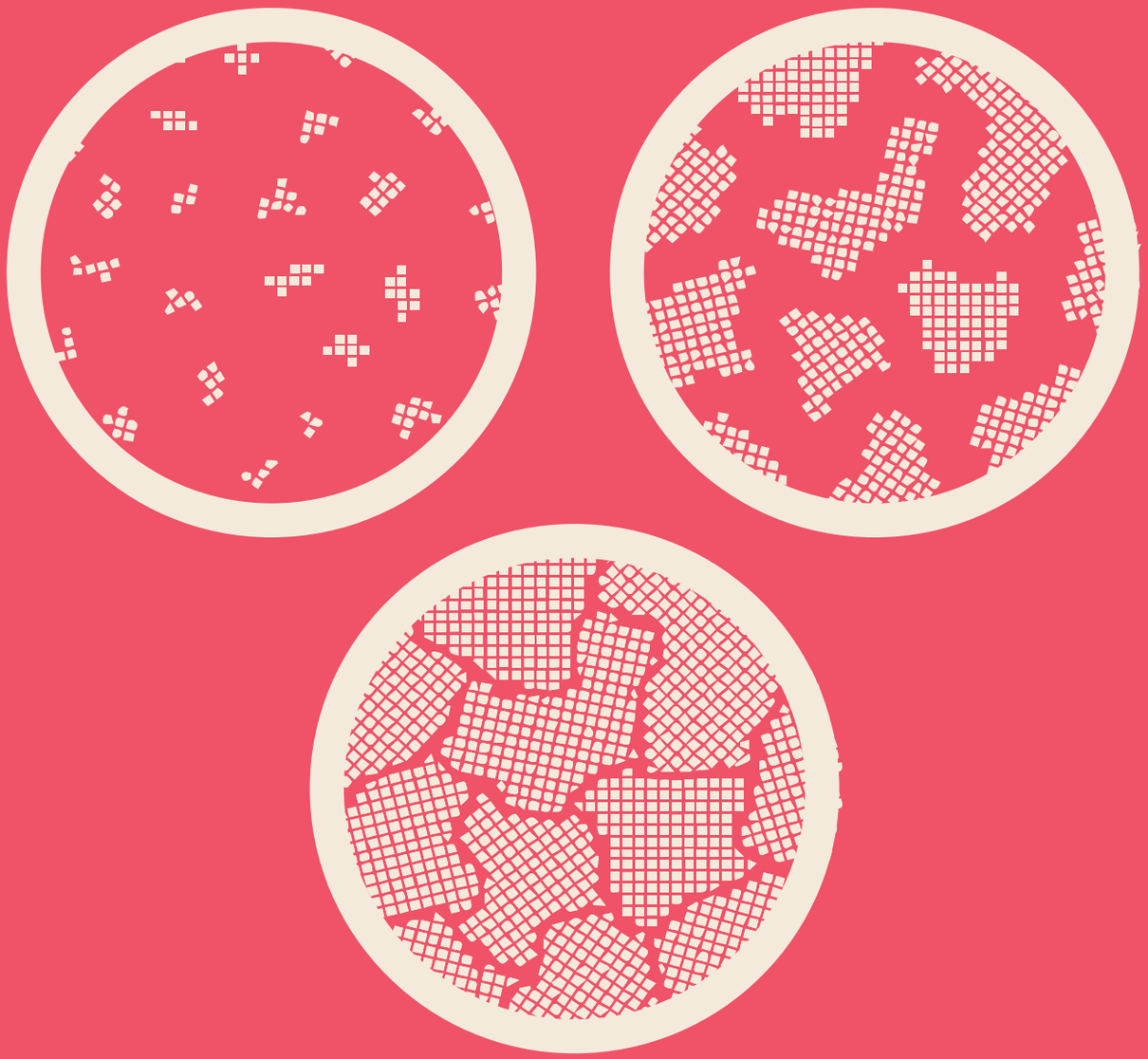
W

POUDRE MÉTALLIQUE

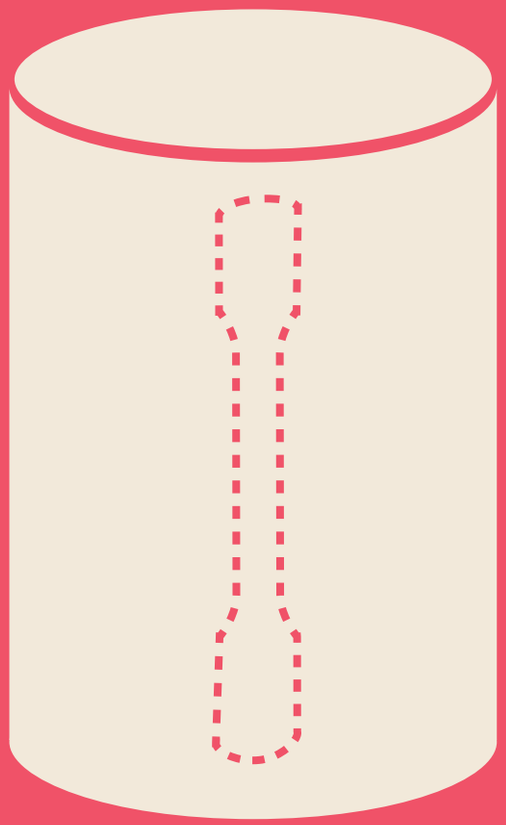
Titane, Nickel, Tungstène, Aluminium



MICROSTRUCTURE MODIFIÉE

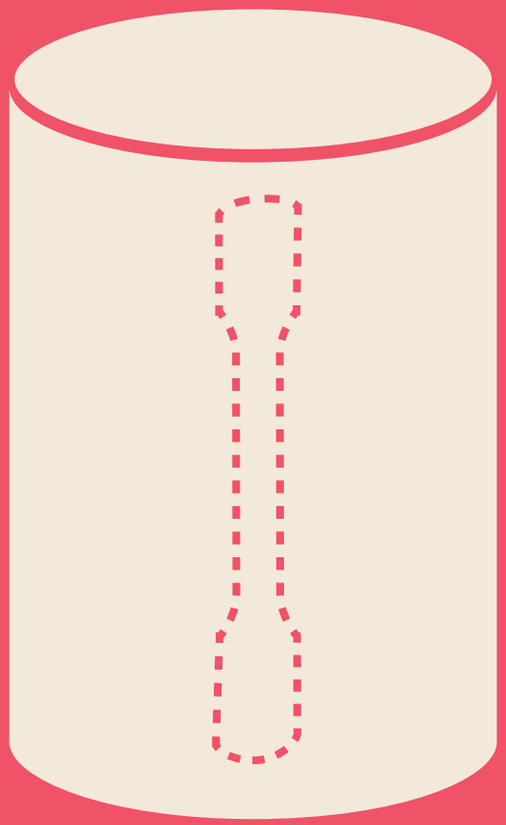


MICROSTRUCTURE MODIFIÉE



CYLINDRE MÉTALLIQUE AUX NOUVELLES PROPRIÉTÉS

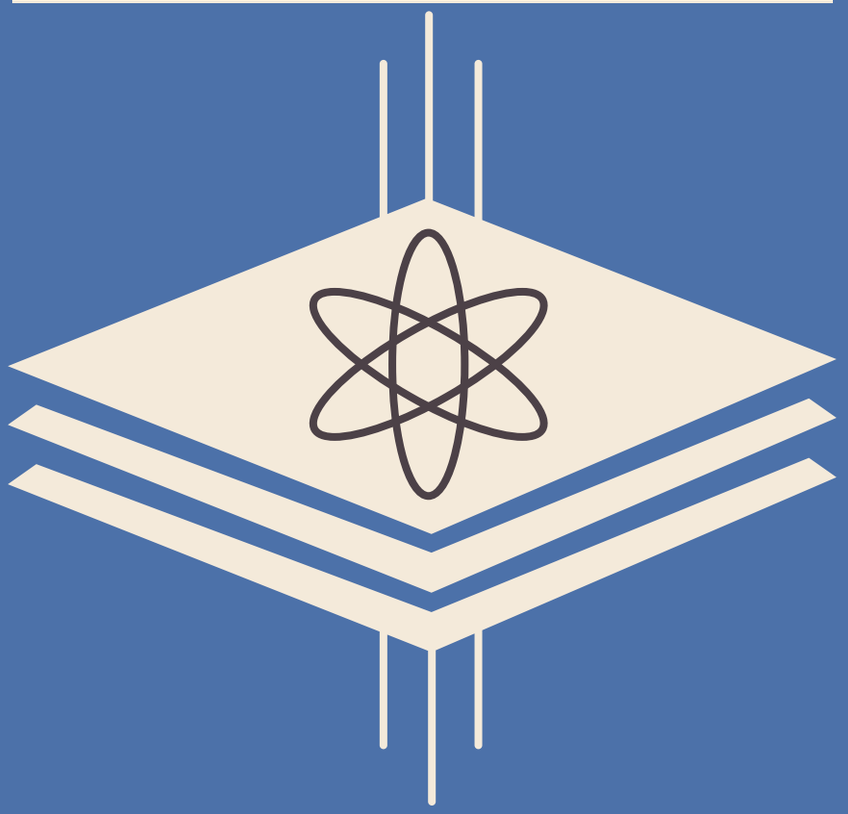
découpe d'eprouvette



CYLINDRE MÉTALLIQUE AUX NOUVELLES PROPRIÉTÉS

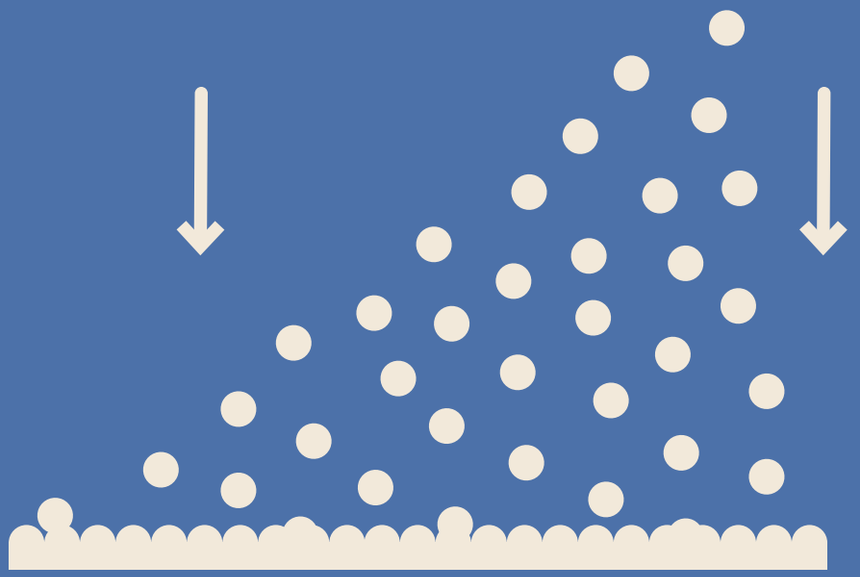
découpe d'eprouvette

PPANAM



Procédés Plasma Nanos- tructures
et Films Minces

DÉPÔT D'ATOMES



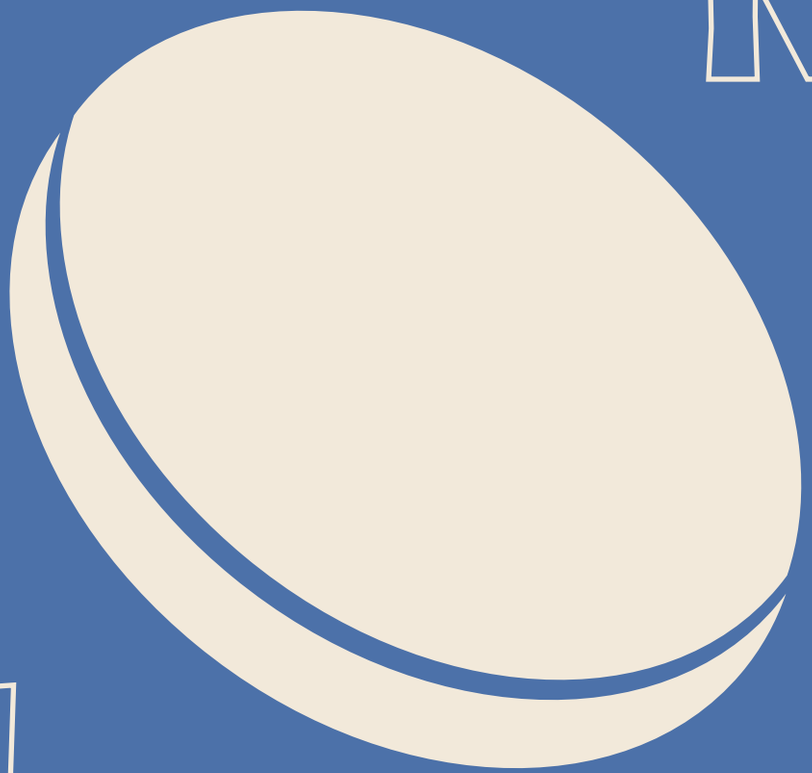
Fabrique des matériaux aux propriétés électromagnétiques, électroniques, optiques, esthétiques.

Fe

Cu

Ni

Al



Co

Au

Ti

MÉTAL SOLIDE

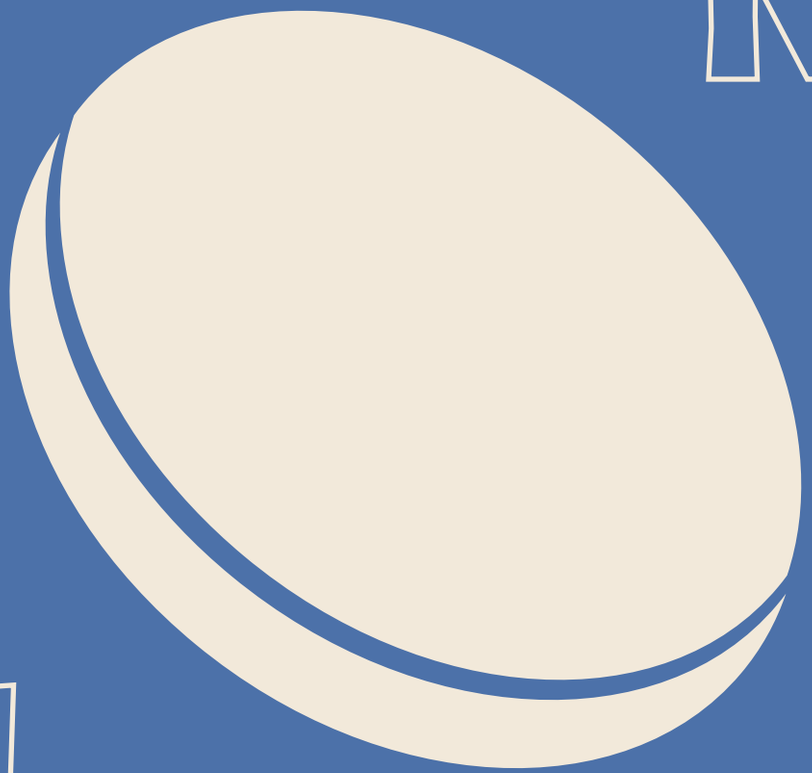
(cible)

Fe

Cu

Ni

Al



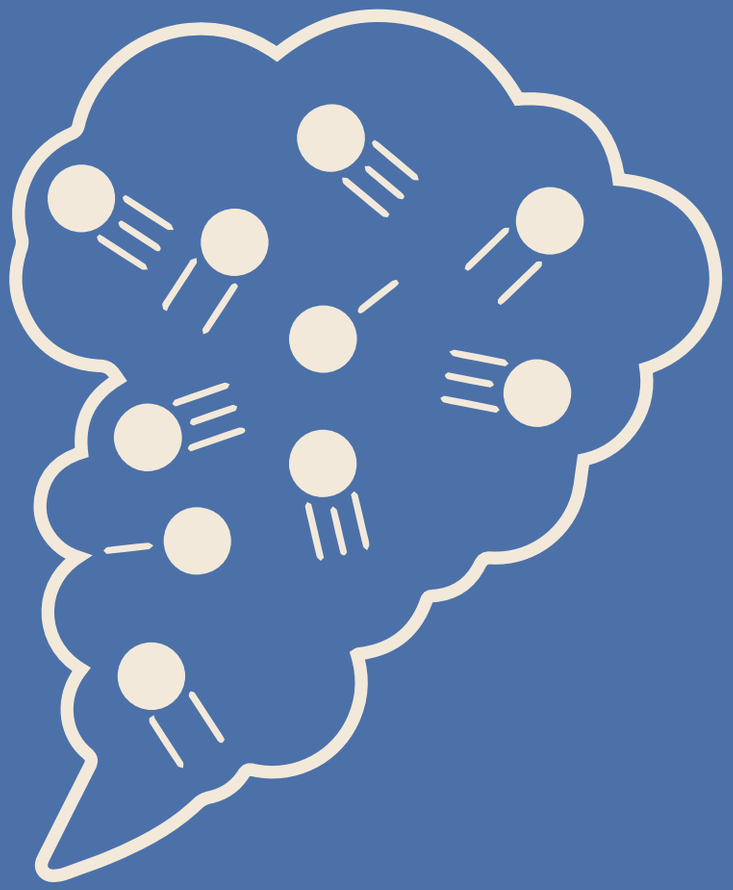
Co

Au

Ti

MÉTAL SOLIDE

(cible)

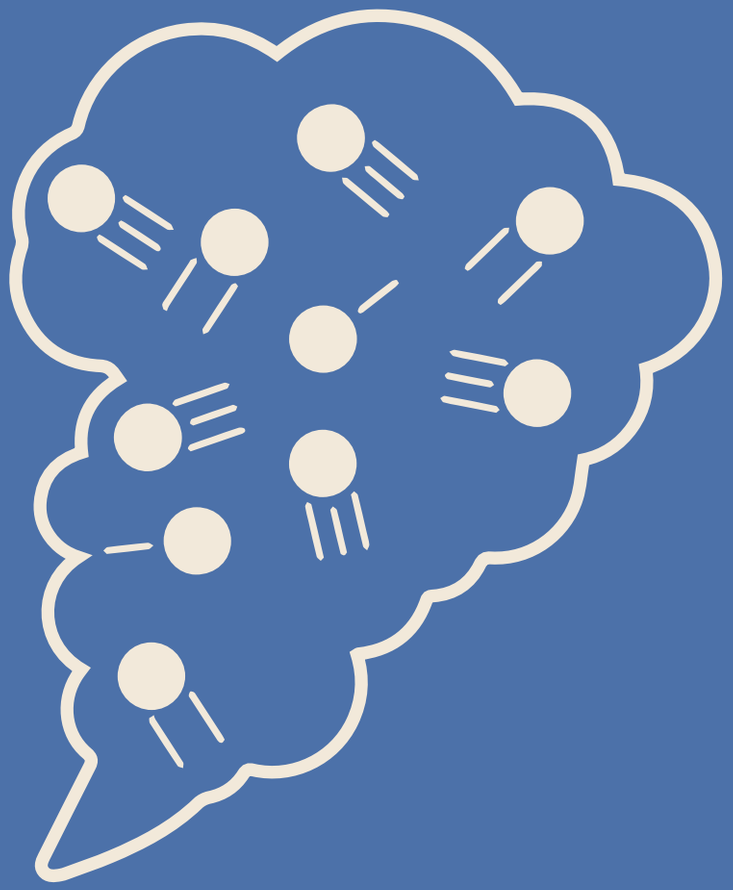


CH_4

H_2

O_2

GAZ RÉACTIFS

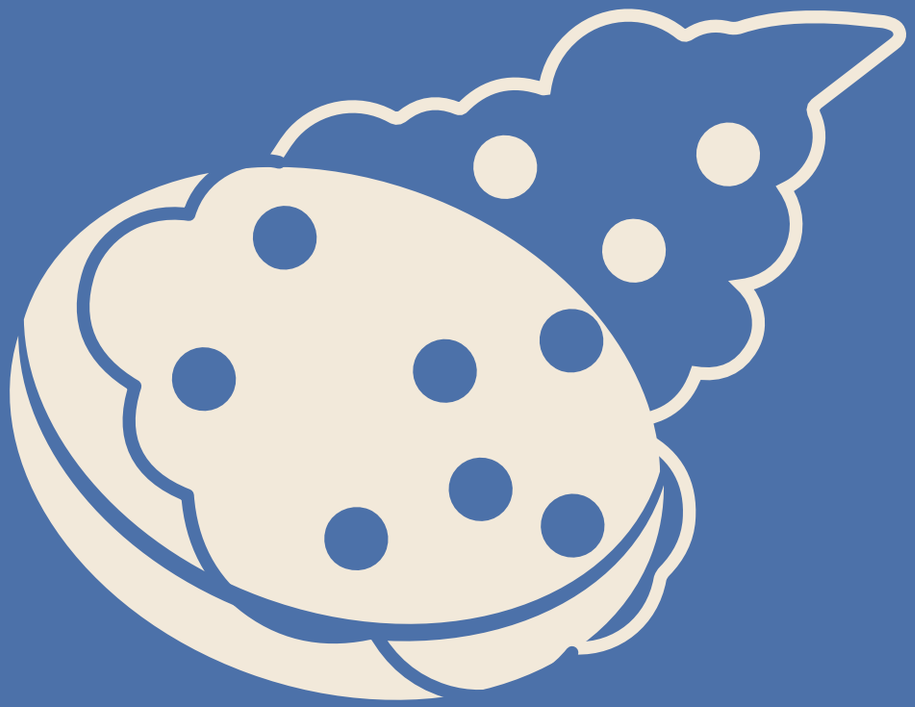


CH_4

H_2

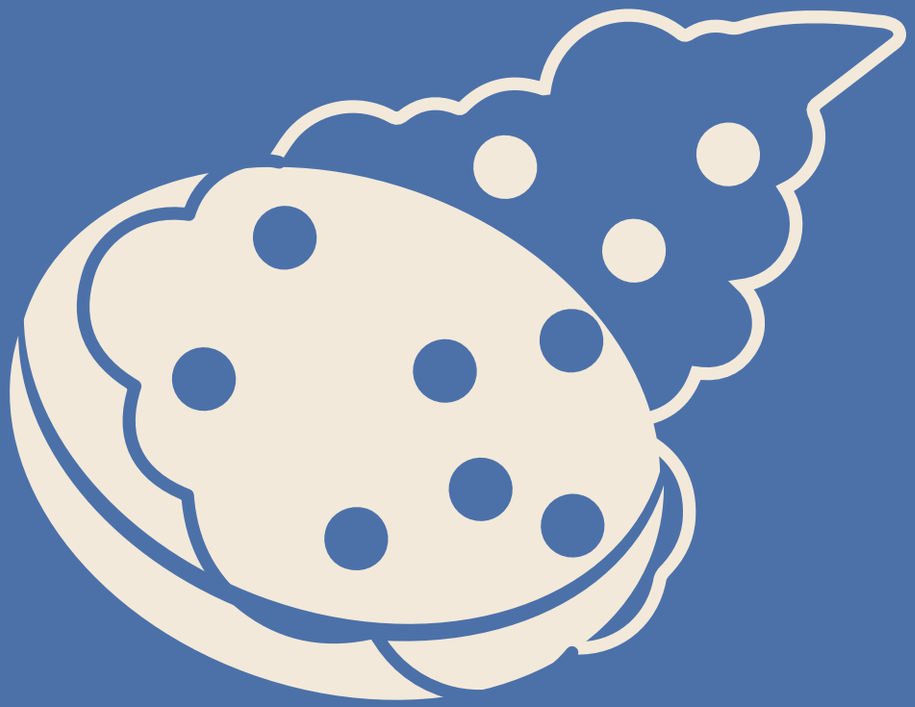
O_2

GAZ RÉACTIFS



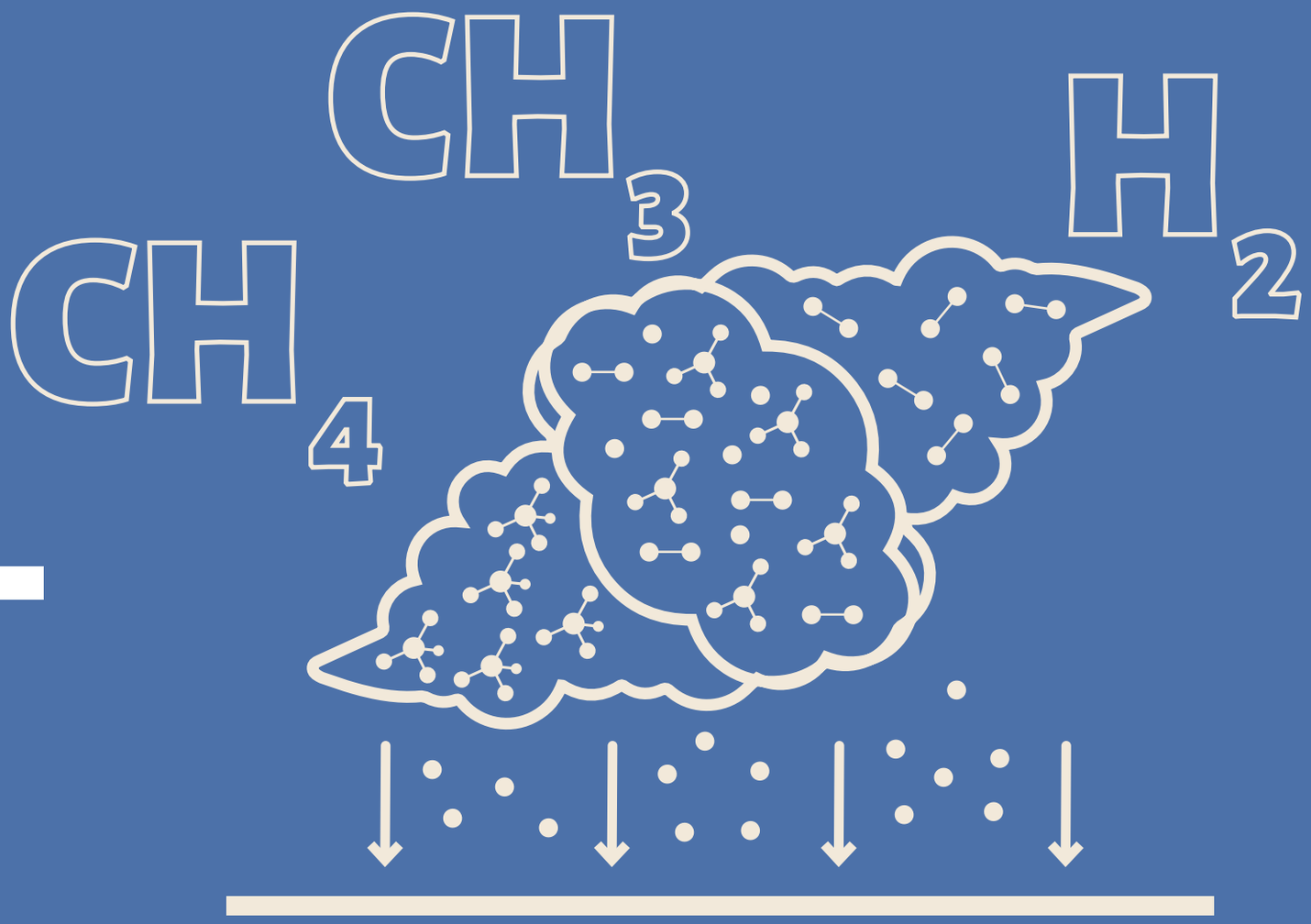
DÉPÔT PHYSIQUE EN PHASE VAPEUR

(évaporation, pulvérisation...)



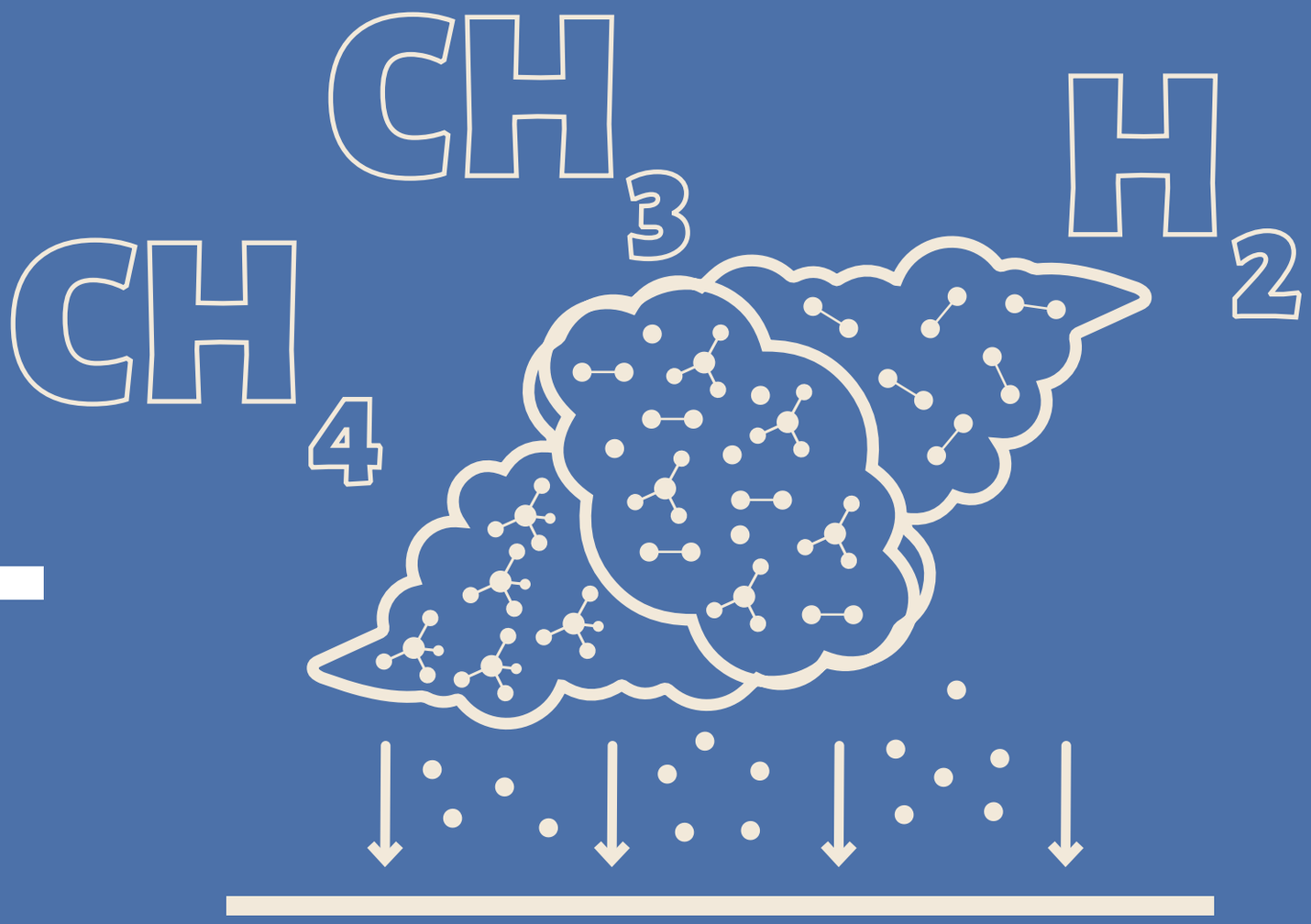
DÉPÔT PHYSIQUE EN PHASE VAPEUR

(évaporation, pulvérisation...)



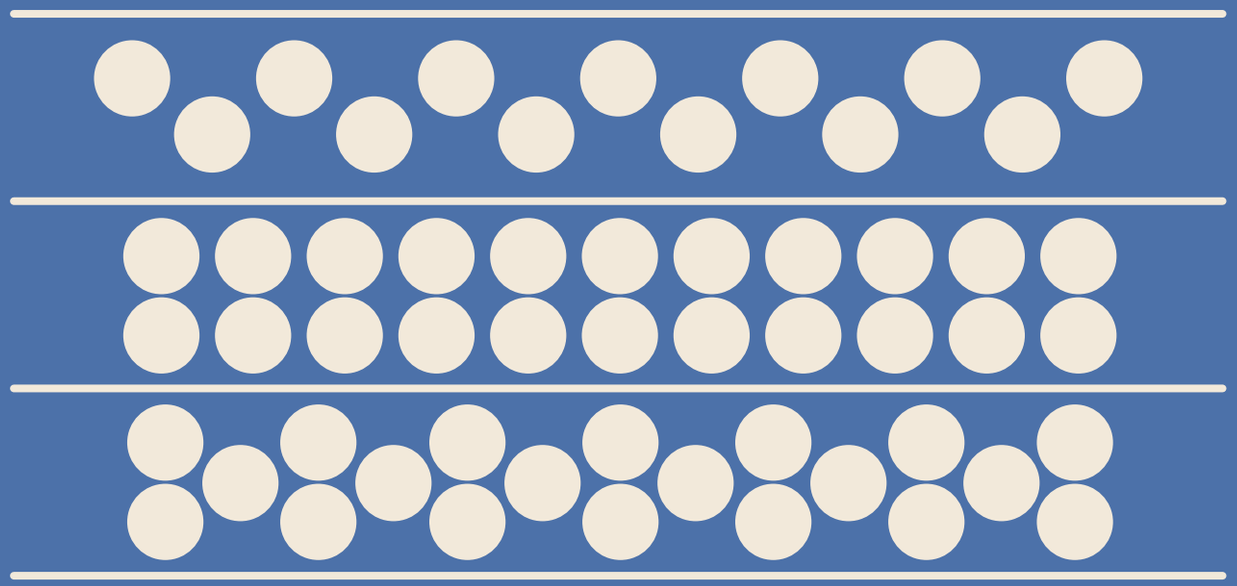
DÉPÔT CHIMIQUE EN PHASE VAPEUR

(CVD, PECVD...)

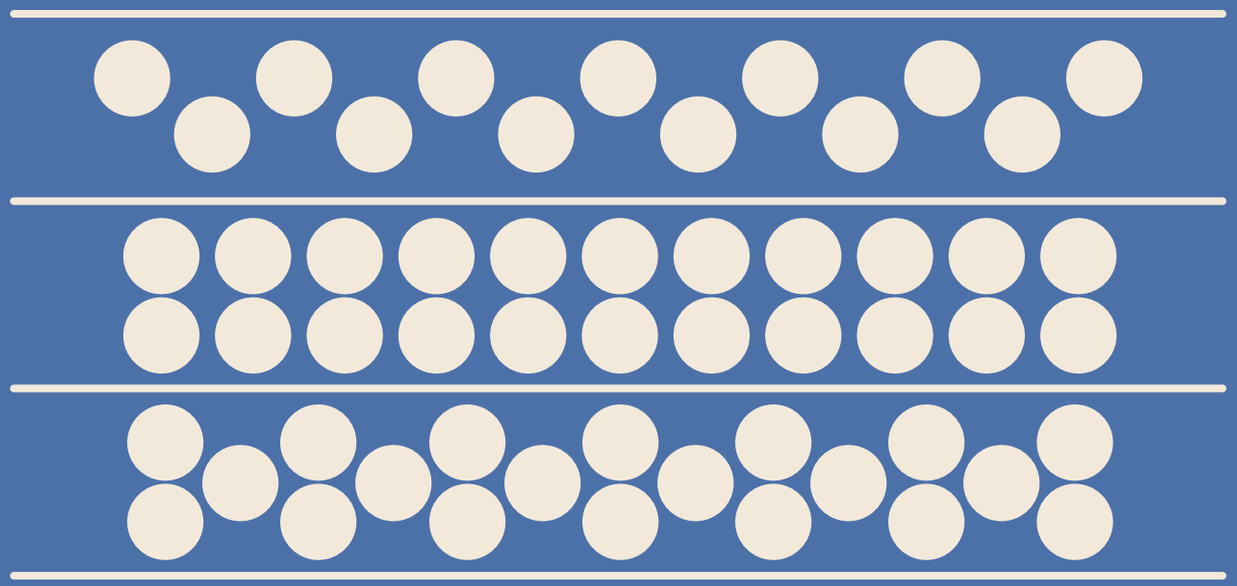


DÉPÔT CHIMIQUE EN PHASE VAPEUR

(CVD, PECVD...)



AGENCEMENT DES ATOMES EN COUCHES MINCES



AGENCEMENT DES ATOMES EN COUCHES MINCES

DIAMANT

DIAMANT

LE PROCÉDÉ
DE FABRICATION

↓

Méthode utilisée pour la réalisation d'une tâche ou la fabrication d'un matériau ou d'un produit fini.

Précurseur

élément de base

↓

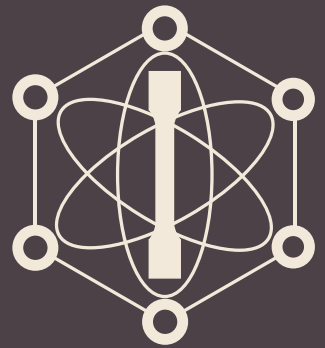
PROTOCOLE DE TRANSFORMATION

↓

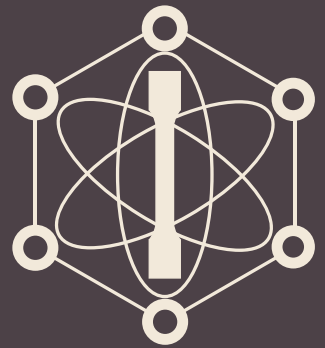
Nouveau Matériau

avec de nouvelles propriétés

LSPM



LSPM



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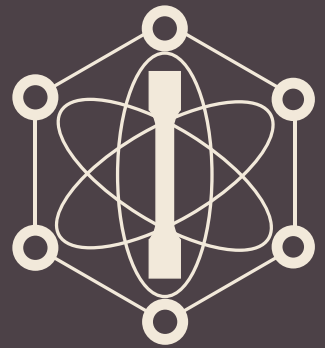

LSPM