

Matrices pour plan d'expérience

Matrices d'expériences orthogonales fractionnaires issues des matrices de base

Les matrices d'expériences standard originales de G. Taguchi sont reproduites avec l'aimable autorisation de l'American Supplier Institute (ASI, 17333 Federal Drive, Suite 220, Allen Park, Michigan 48101).

En tête de chacune des colonnes des matrices d'expériences préétablies figure le numéro qui l'identifie dans la matrice standard originale proposée par G. Taguchi.

- **Matrice d'expériences L₈ (4 facteurs à 2 niveaux et 1 facteur à 4 niveaux)**

| N° essai | 1 | 3 | 5 | 7 | 2_6_4 |
|-------------|---------------------------------|---|---|---|-------|
| | Facteurs contr TM 's | | | | |
| | A | B | C | D | E |
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 2 | 2 |
| 3 | 1 | 2 | 1 | 2 | 3 |
| 4 | 1 | 2 | 2 | 1 | 4 |
| 5 | 2 | 2 | 2 | 2 | 1 |
| 6 | 2 | 2 | 1 | 1 | 2 |
| 7 | 2 | 1 | 2 | 1 | 3 |
| 8 | 2 | 1 | 1 | 2 | 4 |

- **Matrice d'expériences L₁₆ (12 facteurs à 2 niveaux et 1 facteur à 4 niveaux)**

| N° essai | 1 | 2 | 3 | 4 | 5 | 7 | 8 | 9 | 10 | 12 | 14 | 15 | 6-13-11 |
|-------------|---------------------------------|---|---|---|---|---|---|---|----|----|----|----|---------|
| | Facteurs contr TM 's | | | | | | | | | | | | |
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 3 |
| 4 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 4 |
| 5 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 4 |
| 6 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 3 |
| 7 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 |
| 8 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 |
| 9 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 |
| 10 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 |
| 11 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 4 |
| 12 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 3 |
| 13 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 3 |
| 14 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 4 |
| 15 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 |
| 16 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 |

• Matrice d'expériences L₁₆ (9 facteurs à 2 niveaux et 2 facteurs à 4 niveaux)

| N° essai | 1 | 2 | 3 | 4 | 5 | 8 | 10 | 12 | 15 | 6-13-11 | 7-14-9 |
|-------------|--------------------------------|---|---|---|---|---|----|----|----|---------|--------|
| | Facteurs contr TM s | | | | | | | | | | |
| | A | B | C | D | E | F | G | H | I | J | K |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 3 |
| 4 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 4 | 4 |
| 5 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 4 | 3 |
| 6 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 3 | 4 |
| 7 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 |
| 8 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 |
| 9 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 4 |
| 10 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 3 |
| 11 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 4 | 2 |
| 12 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 |
| 13 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 2 |
| 14 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 4 | 1 |
| 15 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 4 |
| 16 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 3 |

• Matrice d'expériences L₁₆ (6 facteurs à 2 niveaux et 3 facteurs à 4 niveaux)

| N° essai | 1 | 2 | 3 | 4 | 8 | 12 | 5-15-10 | 7-14-9 | 6-13-11 |
|-------------|--------------------|---|---|---|---|----|---------|--------|---------|
| | Facteurs contrôlés | | | | | | | | |
| | A | B | C | D | E | F | G | H | I |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| 3 | 1 | 1 | 1 | 2 | 1 | 2 | 3 | 3 | 3 |
| 4 | 1 | 1 | 1 | 2 | 2 | 1 | 4 | 4 | 4 |
| 5 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 4 |
| 6 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 4 | 3 |
| 7 | 1 | 2 | 2 | 2 | 1 | 2 | 4 | 1 | 2 |
| 8 | 1 | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 1 |
| 9 | 2 | 1 | 2 | 1 | 1 | 1 | 3 | 4 | 2 |
| 10 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 3 | 1 |
| 11 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 4 |
| 12 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 3 |
| 13 | 2 | 2 | 1 | 1 | 1 | 1 | 4 | 2 | 3 |
| 14 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 1 | 4 |
| 15 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 1 |
| 16 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 3 | 2 |

• Matrice d'expériences L₁₆ (3 facteurs à 2 niveaux et 4 facteurs à 4 niveaux)

| N° essai | 1 | 2 | 3 | 4_12_8 | 5-15-10 | 7-14-9 | 6-13-11 |
|-------------|---|---|---|--------|---------|--------|---------|
| | A | B | C | D | E | F | G |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| 3 | 1 | 1 | 1 | 3 | 3 | 3 | 3 |
| 4 | 1 | 1 | 1 | 4 | 4 | 4 | 4 |
| 5 | 1 | 2 | 2 | 1 | 2 | 3 | 4 |
| 6 | 1 | 2 | 2 | 2 | 1 | 4 | 3 |
| 7 | 1 | 2 | 2 | 3 | 4 | 1 | 2 |
| 8 | 1 | 2 | 2 | 4 | 3 | 2 | 1 |
| 9 | 2 | 1 | 2 | 1 | 3 | 4 | 2 |
| 10 | 2 | 1 | 2 | 2 | 4 | 3 | 1 |
| 11 | 2 | 1 | 2 | 3 | 1 | 2 | 4 |
| 12 | 2 | 1 | 2 | 4 | 2 | 1 | 3 |
| 13 | 2 | 2 | 1 | 1 | 4 | 2 | 3 |
| 14 | 2 | 2 | 1 | 2 | 3 | 1 | 4 |
| 15 | 2 | 2 | 1 | 3 | 2 | 4 | 1 |
| 16 | 2 | 2 | 1 | 4 | 1 | 3 | 2 |

• Matrice d'expériences L₃₂ (28 facteurs à 2 niveaux et 1 facteur à 4 niveaux)

| N° essai | Facteurs contr TM s | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--------------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 16 | 17 | 18 | 19 | 20 | 21 | 23 | 24 | 26 | 27 | 28 | 29 | 30 | 31 | | | |
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | % | " | | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | | |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | | |
| 5 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 4 | | |
| 6 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | | |
| 7 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | | |
| 8 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | | |
| 9 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | | |
| 10 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | |
| 11 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | | |
| 12 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | | |
| 13 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | | |
| 14 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | | |
| 15 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | | |
| 16 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 4 | | |
| 17 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | |
| 18 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 4 |
| 19 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 |
| 20 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| 21 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 |
| 22 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 |
| 23 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 4 |
| 24 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 3 |
| 25 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 |
| 26 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 |
| 27 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 4 |
| 28 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 3 |
| 29 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 3 |
| 30 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 4 |
| 31 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 |
| 32 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 |

• Matrice d'expériences L₃₂ (25 facteurs à 2 niveaux et 2 facteurs à 4 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | % | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | |
| 5 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 4 | 4 | | |
| 6 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 1 | | |
| 7 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | | |
| 8 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | | |
| 9 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 4 | 2 | | |
| 10 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | 3 | | |
| 11 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | | |
| 12 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 4 | | |
| 13 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | | |
| 14 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | | |
| 15 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 3 | 4 | | |
| 16 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 4 | 1 | | |
| 17 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | | |
| 18 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | | |
| 19 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 4 | | |
| 20 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | | |
| 21 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | | |
| 22 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | | |
| 23 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | 1 | | |
| 24 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 3 | 4 | | |
| 25 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 4 | | |
| 26 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | | |
| 27 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 4 | 3 | | |
| 28 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 3 | 2 | | |
| 29 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | | |
| 30 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 4 | 4 | | |
| 31 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | | |
| 32 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 3 | | |

• Matrice d'expériences L₃₂ (22 facteurs à 2 niveaux et 3 facteurs à 4 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 3 | 4 | |
| 5 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 4 | 4 | 1 | |
| 6 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 1 | 2 | |
| 7 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 3 | |
| 8 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 4 | |
| 9 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 4 | 2 | 2 | |
| 10 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 3 | 3 | 1 | |
| 11 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 4 | |
| 12 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 4 | 3 | |
| 13 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | |
| 14 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | |
| 15 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 4 | 4 | |
| 16 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 4 | 1 | 3 | |
| 17 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 4 | |
| 18 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | 3 | |
| 19 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 4 | 2 | |
| 20 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | |
| 21 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | |
| 22 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | 3 | |
| 23 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 4 | 1 | 2 | |
| 24 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 3 | 4 | 1 | |
| 25 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 4 | 3 | |
| 26 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | |
| 27 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 4 | 3 | 1 | |
| 28 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 3 | 2 | 2 | |
| 29 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 3 | 1 | 3 | |
| 30 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 4 | 4 | 4 | |
| 31 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | |
| 32 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | |

• Matrice d'expériences L₃₂ (19 facteurs à 2 niveaux et 4 facteurs à 4 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | X | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 4 | 3 | 4 | 1 | | |
| 5 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 4 | 4 | 1 | 3 | |
| 6 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 1 | 2 | 4 | |
| 7 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 4 | |
| 8 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 4 | 3 | |
| 9 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 4 | 2 | 2 | 4 | |
| 10 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 3 | 3 | 1 | 3 | |
| 11 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 4 | 3 | |
| 12 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 4 | 3 | 4 | |
| 13 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 2 | 2 | |
| 14 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | |
| 15 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 4 | 4 | 1 | |
| 16 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 4 | 1 | 3 | 2 | |
| 17 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | |
| 18 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | 3 | 3 | |
| 19 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 4 | 2 | 3 | |
| 20 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | |
| 21 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 2 | |
| 22 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 1 | |
| 23 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 4 | 1 | 2 | 1 | |
| 24 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 3 | 4 | 1 | 2 | |
| 25 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 4 | 3 | 1 | |
| 26 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | |
| 27 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 4 | 3 | 1 | 2 | |
| 28 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 3 | 2 | 2 | 1 | |
| 29 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 1 | 3 | 3 | |
| 30 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 4 | 4 | 4 | 4 | |
| 31 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 4 | |
| 32 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | |

• Matrice d'expériences L₃₂ (16 facteurs à 2 niveaux et 5 facteurs à 4 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 4 | 3 | 4 | 1 | 3 |
| 5 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 4 | 4 | 1 | 3 | 1 |
| 6 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 4 | 4 |
| 7 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 4 | 2 |
| 8 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 4 | 3 | 3 |
| 9 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 4 | 2 | 2 | 4 | 1 |
| 10 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 3 | 4 |
| 11 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 4 | 3 | 2 |
| 12 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 4 | 3 | 4 | 3 |
| 13 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 3 | 2 | 2 | 1 |
| 14 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 4 |
| 15 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 4 | 4 | 1 | 2 |
| 16 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 4 | 1 | 3 | 2 | 3 |
| 17 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 1 |
| 18 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 4 | 2 | 3 | 3 | 4 |
| 19 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 4 | 2 | 3 | 2 |
| 20 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 4 | 3 | |
| 21 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 4 | 2 | 1 |
| 22 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 3 | 3 | 1 | 4 |
| 23 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 1 | 2 | 1 | 2 |
| 24 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 4 | 1 | 2 | 3 |
| 25 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 4 | 3 | 1 | 1 |
| 26 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | 4 |
| 27 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 4 | 3 | 1 | 2 | 2 |
| 28 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 3 |
| 29 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 1 | 3 | 3 | 1 |
| 30 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 4 | 4 | 4 | 4 | 4 |
| 31 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 2 | |
| 32 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 3 |

• Matrice d'expériences L₃₂ (13 facteurs à 2 niveaux et 6 facteurs à 4 niveaux)

| N° essai | Facteurs | | | | | | | | | | | | | | | | contr TM 's | | | | | | | | | |
|-------------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------|---|---|--|--|--|--|--|--|--|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | | | | | | | |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 1 | | | | | | | |
| 3 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | | | | | | | |
| 4 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 4 | 3 | 4 | 1 | 3 | 2 | | | | | | | |
| 5 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 4 | 4 | 1 | 3 | 1 | 3 | | | | | | | |
| 6 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 4 | 4 | 3 | | | | | | | |
| 7 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 4 | 2 | 4 | | | | | | | |
| 8 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 4 | 3 | 3 | 4 | | | | | | | |
| 9 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 4 | 2 | 2 | 4 | 1 | 2 | | | | | | | |
| 10 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 3 | 4 | 2 | | | | | | | |
| 11 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 4 | 3 | 2 | 1 | | | | | | | |
| 12 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 4 | 3 | 4 | 3 | 1 | | | | | | | |
| 13 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 3 | 2 | 2 | 1 | 4 | | | | | | | |
| 14 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 4 | | | | | | | |
| 15 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 4 | 4 | 1 | 2 | 3 | | | | | | | |
| 16 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 4 | 1 | 3 | 2 | 3 | 3 | | | | | | | |
| 17 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 1 | 1 | | | | | | | |
| 18 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 4 | 2 | 3 | 3 | 4 | 1 | | | | | | | |
| 19 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 4 | 2 | 3 | 2 | 2 | | | | | | | |
| 20 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 3 | 2 | | | | | | | |
| 21 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 4 | 2 | 1 | 3 | | | | | | | |
| 22 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 3 | 3 | 1 | 4 | 3 | | | | | | | |
| 23 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 1 | 2 | 1 | 2 | 4 | | | | | | | |
| 24 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | | | |
| 25 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 4 | 3 | 1 | 1 | 2 | | | | | | | |
| 26 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | 4 | 2 | | | | | | | |
| 27 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 3 | 1 | | | | | | | |
| 28 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 3 | 1 | | | | | | | |
| 29 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 1 | 3 | 3 | 1 | 4 | | | | | | | |
| 30 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | | | | | | | |
| 31 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 2 | 3 | 3 | | | | | | | |
| 32 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | | | | | | | |

• Matrice d'expériences L₃₂ (10 facteurs à 2 niveaux et 7 facteurs à 4 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 1 | 2 |
| 3 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 2 |
| 4 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 4 | 1 | 3 | 2 | 1 |
| 5 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | 4 | 1 | 3 | 1 | 3 | 2 |
| 6 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 1 | 2 | 4 | 4 | 3 | 1 | |
| 7 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 2 | 4 | 1 |
| 8 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 4 | 3 | 3 | 4 | 2 |
| 9 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 4 | 2 | 2 | 4 | 1 | 2 | 3 |
| 10 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 3 | 4 | 2 | 4 |
| 11 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 4 | 3 | 2 | 1 | 4 |
| 12 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 4 | 3 | 1 | 3 |
| 13 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 1 | 4 | 4 |
| 14 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 4 | 3 |
| 15 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 3 | 4 | 4 | 1 | 2 | 3 | 3 |
| 16 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 4 | 1 | 3 | 2 | 3 | 3 | 4 |
| 17 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 1 | 1 | 2 |
| 18 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 4 | 2 | 3 | 3 | 4 | 1 | 1 |
| 19 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 4 | 2 | 3 | 2 | 2 | 1 |
| 20 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 2 | 2 |
| 21 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 2 | 1 | 3 | 1 |
| 22 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 4 | 3 | 2 |
| 23 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 2 | 4 | 2 |
| 24 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 |
| 25 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 4 | 3 | 1 | 1 | 2 | 4 |
| 26 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 4 | 2 | 4 | 2 | 3 |
| 27 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 4 | 3 | 1 | 2 | 2 | 1 | 3 |
| 28 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 4 |
| 29 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 3 | 3 | 1 | 4 | 3 |
| 30 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 31 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 4 | 2 | 3 | 4 | |
| 32 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 3 | 3 | 3 | 3 |

• Matrice d'expériences L₃₂ (7 facteurs à 2 niveaux et 8 facteurs à 4 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 1 | 2 | 1 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 |
| 4 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 4 | 3 | 4 | 1 | 3 | 2 | 1 | 2 |
| 5 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | 4 | 1 | 3 | 1 | 3 | 2 | 2 |
| 6 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 1 | 2 | 4 | 4 | 3 | 1 | 2 |
| 7 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 2 | 4 | 1 | 1 |
| 8 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 4 | 3 | 3 | 4 | 2 | 1 |
| 9 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 4 | 2 | 2 | 4 | 1 | 2 | 3 | 1 |
| 10 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 3 | 4 | 2 | 4 | 1 |
| 11 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 2 |
| 12 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 4 | 3 | 1 | 3 | 2 |
| 13 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 1 | 4 | 4 | 2 |
| 14 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 4 | 3 | 2 |
| 15 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 3 | 4 | 4 | 1 | 2 | 3 | 3 | 1 |
| 16 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 4 | 1 | 3 | 2 | 3 | 3 | 4 | 1 |
| 17 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 1 | 1 | 2 | 3 |
| 18 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 4 | 2 | 3 | 3 | 4 | 1 | 1 | 3 |
| 19 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 4 | 2 | 3 | 2 | 2 | 1 | 4 |
| 20 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 2 | 2 | 4 |
| 21 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 4 | 2 | 1 | 3 | 1 | 4 |
| 22 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 4 | 3 | 2 | 4 |
| 23 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 2 | 4 | 2 | 3 |
| 24 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 3 |
| 25 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 4 | 3 | 1 | 1 | 2 | 4 | 3 |
| 26 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 4 | 2 | 4 | 2 | 3 | 3 |
| 27 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 4 | 3 | 1 | 2 | 2 | 1 | 3 | 4 |
| 28 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 4 | 4 |
| 29 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 3 | 3 | 1 | 4 | 3 | 4 |
| 30 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 31 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 4 | 2 | 3 | 4 | 3 |
| 32 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |

• Matrice d'expériences L₃₂ (4 facteurs à 2 niveaux et 9 facteurs à 4 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 1 | 2 | 1 | 4 |
| 3 | 1 | 1 | 1 | 1 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 |
| 4 | 1 | 1 | 2 | 2 | 4 | 3 | 4 | 1 | 3 | 2 | 1 | 2 | 4 |
| 5 | 1 | 2 | 1 | 2 | 4 | 4 | 1 | 3 | 1 | 3 | 2 | 2 | 2 |
| 6 | 1 | 2 | 2 | 1 | 3 | 1 | 2 | 4 | 4 | 3 | 1 | 2 | 3 |
| 7 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 4 | 2 | 4 | 1 | 1 | 2 |
| 8 | 1 | 2 | 2 | 1 | 1 | 2 | 4 | 3 | 3 | 4 | 2 | 1 | 3 |
| 9 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 4 | 1 | 2 | 3 | 1 | 1 |
| 10 | 2 | 2 | 1 | 1 | 3 | 3 | 1 | 3 | 4 | 2 | 4 | 1 | 4 |
| 11 | 2 | 2 | 2 | 2 | 2 | 1 | 4 | 3 | 2 | 1 | 4 | 2 | 1 |
| 12 | 2 | 2 | 1 | 1 | 1 | 4 | 3 | 4 | 3 | 1 | 3 | 2 | 4 |
| 13 | 2 | 1 | 2 | 1 | 1 | 3 | 2 | 2 | 1 | 4 | 4 | 2 | 2 |
| 14 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 4 | 3 | 2 | 3 |
| 15 | 2 | 1 | 2 | 1 | 3 | 4 | 4 | 1 | 2 | 3 | 3 | 1 | 2 |
| 16 | 2 | 1 | 1 | 2 | 4 | 1 | 3 | 2 | 3 | 3 | 4 | 1 | 3 |
| 17 | 2 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | 1 | 1 | 2 | 3 | 3 |
| 18 | 2 | 1 | 2 | 1 | 4 | 2 | 3 | 3 | 4 | 1 | 1 | 3 | 2 |
| 19 | 2 | 1 | 1 | 2 | 1 | 4 | 2 | 3 | 2 | 2 | 1 | 4 | 3 |
| 20 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 4 | 3 | 2 | 2 | 4 | 2 |
| 21 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | 2 | 1 | 3 | 1 | 4 | 4 |
| 22 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 1 | 4 | 3 | 2 | 4 | 1 |
| 23 | 2 | 2 | 1 | 1 | 4 | 1 | 2 | 1 | 2 | 4 | 2 | 3 | 4 |
| 24 | 2 | 2 | 2 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 3 | 1 |
| 25 | 1 | 2 | 2 | 1 | 2 | 4 | 3 | 1 | 1 | 2 | 4 | 3 | 3 |
| 26 | 1 | 2 | 1 | 2 | 1 | 1 | 4 | 2 | 4 | 2 | 3 | 3 | 2 |
| 27 | 1 | 2 | 2 | 1 | 4 | 3 | 1 | 2 | 2 | 1 | 3 | 4 | 3 |
| 28 | 1 | 2 | 1 | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 4 | 4 | 2 |
| 29 | 1 | 1 | 2 | 2 | 3 | 1 | 3 | 3 | 1 | 4 | 3 | 4 | 4 |
| 30 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 |
| 31 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 4 | 2 | 3 | 4 | 3 | 4 |
| 32 | 1 | 1 | 1 | 1 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 1 |

• Matrice d'expériences L₃₆ (11 facteurs à 2 niveaux et 12 facteurs à 3 niveaux)

| N° essai | Facteurs contr TM 's | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| 5 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 |
| 6 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| 7 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 3 | 3 | 1 | 2 | 2 | 3 |
| 8 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 1 |
| 9 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 3 | 1 | 1 | 2 |
| 10 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 2 | 1 | 3 | 2 | 3 | 2 | 1 | 3 | 2 |
| 11 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 1 | 3 | 1 | 3 | 2 | 1 | 3 |
| 12 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 1 | 3 | 2 | 1 | 2 | 1 | 3 | 2 | 1 |
| 13 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 3 | 2 | 1 | 3 | 3 | 2 | 1 | 2 |
| 14 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | 2 | 1 | 3 | 2 | 1 | 1 | 3 | 2 | 3 |
| 15 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 2 | 3 | 2 | 1 | 3 | 2 | 2 | 1 | 3 | 1 |
| 16 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 1 | 3 | 2 | 3 | 3 | 2 | 1 |
| 17 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 3 | 2 | 2 | 1 | 3 | 1 | 1 | 3 | 2 |
| 18 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 3 | 1 | 2 | 1 | 3 | 3 | 2 | 1 | 2 | 2 | 1 | 3 |
| 19 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 3 | 3 | 3 | 1 | 2 | 2 | 1 | 2 | 3 |
| 20 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 1 | 1 | 1 | 2 | 3 | 3 | 2 | 3 | 1 |
| 21 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 2 | 2 | 2 | 3 | 1 | 1 | 3 | 1 | 2 |
| 22 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 1 | 1 | 3 | 3 | 2 |
| 23 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 1 | 2 | 3 | 2 | 2 | 1 | 1 | 3 |
| 24 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 3 | 1 | 3 | 3 | 2 | 2 | 1 |
| 25 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 3 | 3 | 1 | 3 | 1 | 2 | 2 |
| 26 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 3 | 3 |
| 27 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 3 | 2 | 1 | 3 | 1 | 2 | 2 | 3 | 2 | 3 | 1 | 1 |
| 28 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 3 | 2 | 2 | 2 | 1 | 1 | 3 | 2 | 3 | 1 | 3 |
| 29 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 1 | 2 | 1 |
| 30 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 3 | 2 | 1 | 1 | 1 | 3 | 3 | 2 | 1 | 2 | 3 | 2 |
| 31 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 1 | 2 | 1 | 1 |
| 32 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 1 | 3 | 3 | 2 | 3 | 2 | 2 |
| 33 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 3 | 1 | 3 | 3 |
| 34 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 3 | 1 | 2 | 3 | 2 | 3 | 1 | 2 | 2 | 3 | 1 |
| 35 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | 3 | 1 | 2 | 3 | 3 | 1 | 2 |
| 36 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 3 | 1 | 2 | 1 | 2 | 3 | 1 | 1 | 2 | 3 |