Resultat de segementation Otus

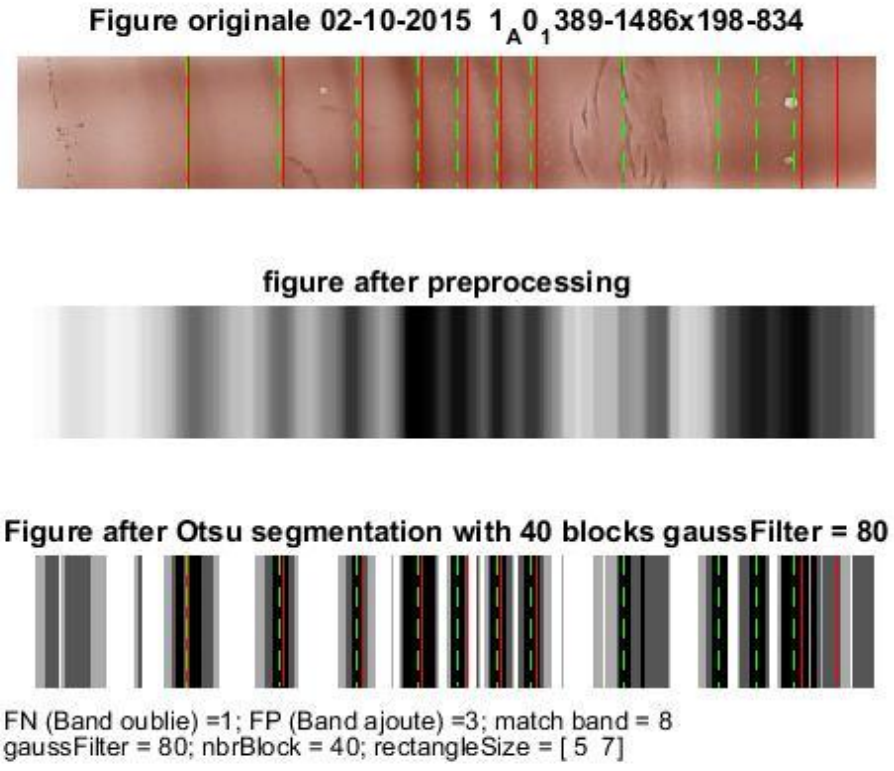
Note : Dans ce premier test, on considère les bandes sont vrais bandes (true positive) quand la distance (la difference) entre les bandes détectées et les bandes données est inférieur à 15 ou 10.

		Bande estimée	
		positive	negative
Bande réelle	positive	TP (matchBandes)	FN (Bande oubliée)
	negative	FP (Bande ajout2e)	TN

Attention : on met la valeur de TN à 0 , où est les vrais non-Bandes et elle est nombreuse en réel.

Accuracy = TP/(TP+TN+FP)

1 . Etude avec Gerard/P/ 02-10-2015 1_A0_1389-1486x198-834.

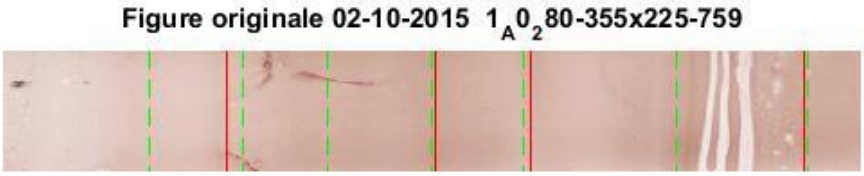


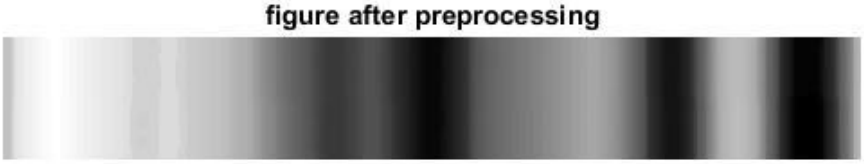
matchBands=[128 198 256 301 335 360 386 583]

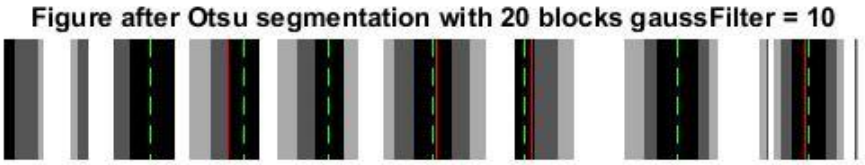
Accuracy = 0.667

$$confusionMatrix = \begin{matrix} 8 & 1 \\ 3 & 0 \end{matrix}$$

2. Etude avec Gerard/P/02-10-2015 1_A0_280-355x225-759







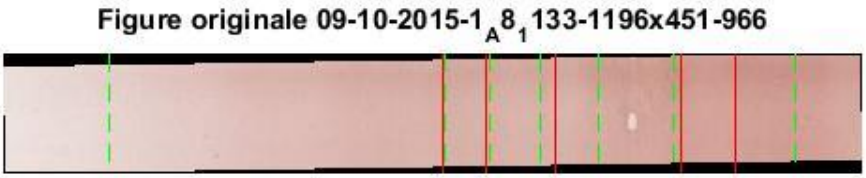
FN (Band oublie) =0; FP (Band ajoute) =3; match band = 4
gaussFilter = 10; nbrBlock = 20; rectangleSize = [5 7]

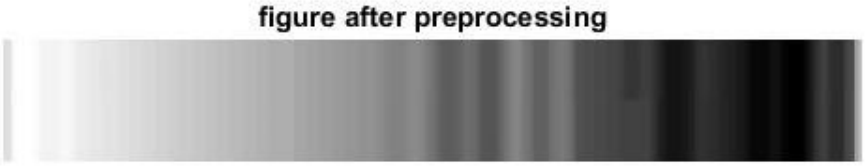
matchBands=[140 270 330 500]

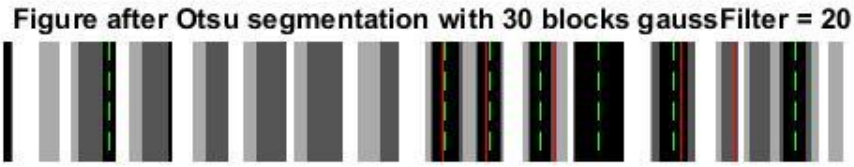
Accuracy = 0.5714

$$confusionMatrix = \begin{matrix} 4 & 0 \\ 3 & 0 \end{matrix}$$

3. Etude avec Gerard/P/09-10-2015-1_A8_1133-1196x451-966







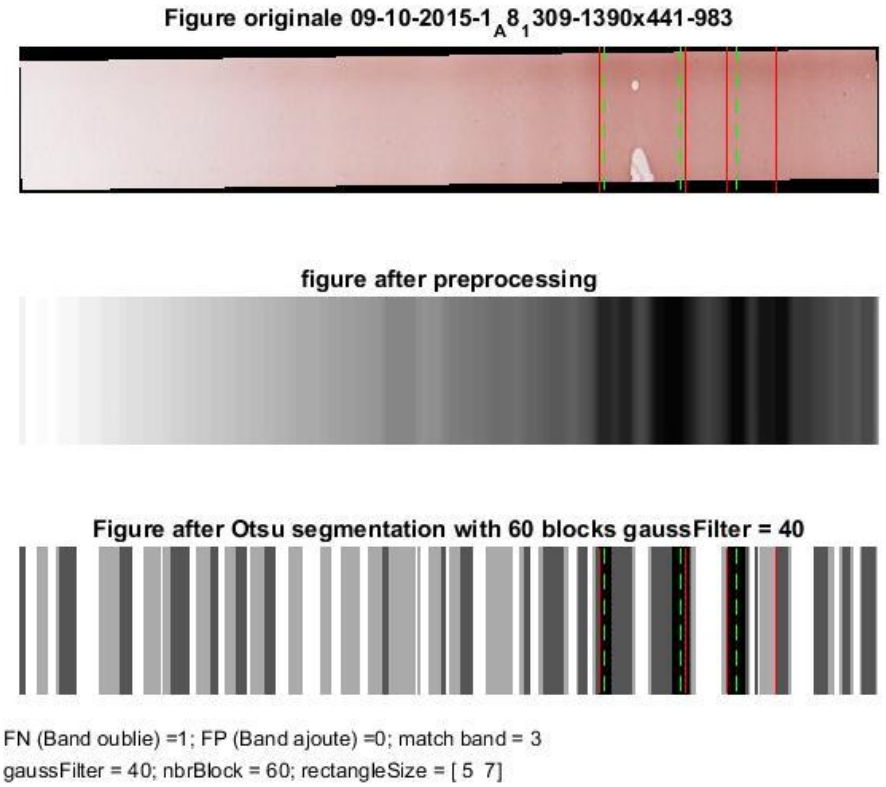
FN (Band oublie) =1; FP (Band ajoute) =3; match band = 4
gaussFilter = 20; nbrBlock = 30; rectangleSize = [5 7]

matchBands=[265 291 333 409]

Accuracy = 0.5

$$confusionMatrix = \begin{matrix} 4 & 1 \\ 3 & 0 \end{matrix}$$

4. Etude avec Gerard/P/ 09-10-2015-1_A8_1309-1390x441-983

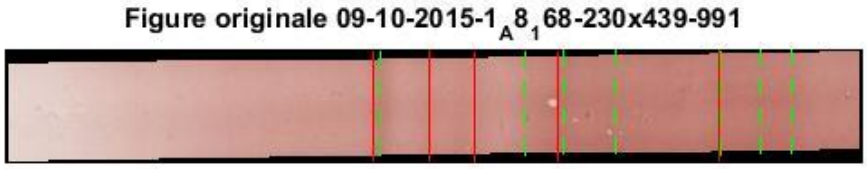


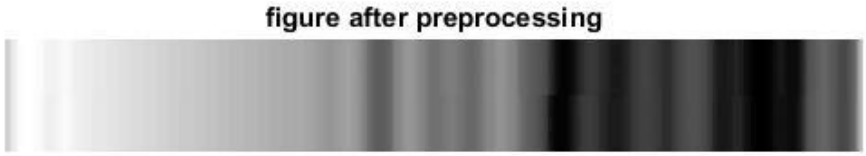
matchBands=[368 423 449]

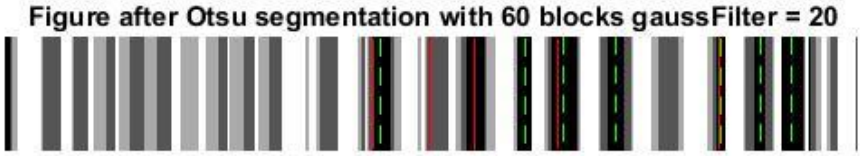
Accuracy = 0.75

$$confusionMatrix = \begin{matrix} 3 & 1 \\ 0 & 0 \end{matrix}$$

5. **Etude avec Gerard/P/ 09-10-2015-1_A8_168-230x439-991**







FN (Band oublie) =1; FP (Band ajoute) =4; match band = 4
gaussFilter = 20; nbrBlock = 60; rectangleSize = [3 5]

matchBands=[240 306 359 464]

Accuracy = 0.4444

$$confusionMatrix = \begin{matrix} 4 & 1 \\ 4 & 0 \end{matrix}$$

6. Etude avec Gerard/P/ 09-10-2015-1_A8_1685-1751x409-961

Figure originale 09-10-2015-1_A8_1685-1751x409-961

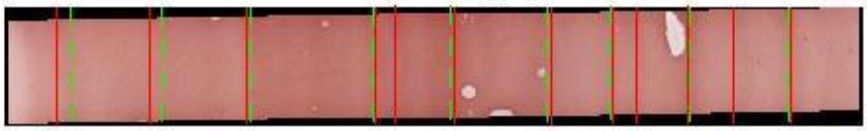
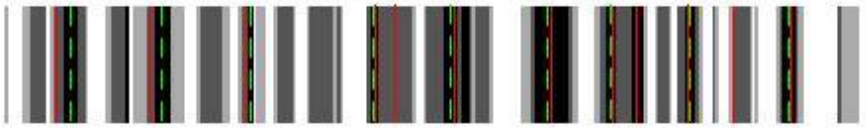


figure after preprocessing

Figure after Otsu segmentation with 40 blocks gaussFilter = 40



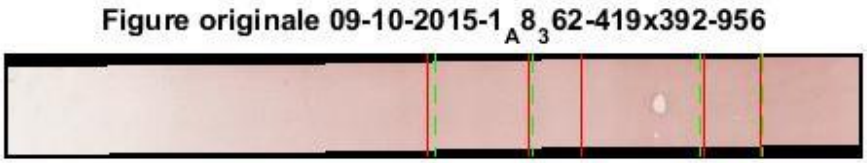
FN (Band oublie) =1; FP (Band ajoute) =0; match band = 11
gaussFilter = 40; nbrBlock = 40; rectangleSize = [3 5]

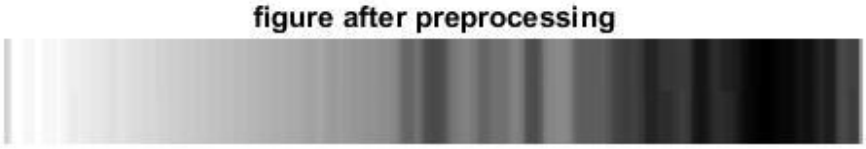
matchBands=[35 95 158 241 254 293 356 395 411 444 511]

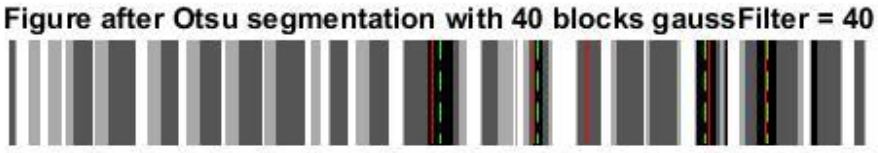
Accuracy = 0.9167

$$confusionMatrix = \begin{matrix} 11 & 1 \\ 0 & 0 \end{matrix}$$

7. Etude avec Gerard/P/ 09-10-2015-1_A8_362-419x392-956







FN (Band oublie) =1; FP (Band ajoute) =0; match band = 4
gaussFilter = 40; nbrBlock = 40; rectangleSize = [3 5]

matchBands=[281 348 464 502]

Accuracy = 0.8

$$confusionMatrix = \begin{matrix} 4 & 1 \\ 0 & 0 \end{matrix}$$

8. Etude avec Gerard/P/ 09-10-2015-1_A8_573-639x441-964.

Figure originale 09-10-2015-1_A8_5 73-639x441-964

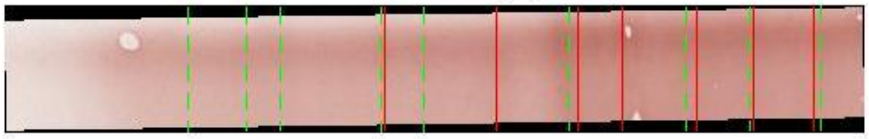
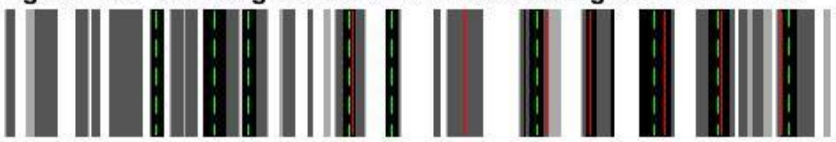


figure after preprocessing

Figure after Otsu segmentation with 40 blocks gaussFilter = 100



FN (Band oublie) =1; FP (Band ajoute) =4; match band = 6
gaussFilter = 100; nbrBlock = 40; rectangleSize = [5 7]

matchBands=[233 351 378 423 458 495]

Accuracy = 0.5455

$$confusionMatrix = \begin{matrix} 6 & 1 \\ 4 & 0 \end{matrix}$$

9. Etude avec Gerard/P/ 09-10-2015-1_A8_949-1000x436-976

Figure originale 09-10-2015-1$_A$8$_9$49-1000x436-976

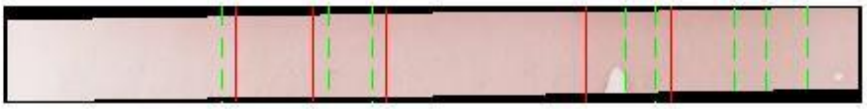


figure after preprocessing

Figure after Otsu segmentation with 30 blocks gaussFilter = 120

FN (Band oublie) =1; FP (Band ajoute) =4; match band = 4
gaussFilter = 120; nbrBlock = 30; rectangleSize = [3 5]

matchBands=[148 197 243 424]

Accuracy = 0.4444

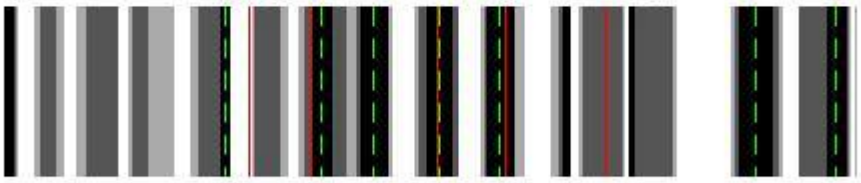
$$confusionMatrix = \begin{matrix} 4 & 1 \\ 4 & 0 \end{matrix}$$

10. Etude avec Gerard/P/ 28-01-2016 -2_A0_1306-1392x340-776

Figure originale 28-01-2016 -2$_A$0$_1$306-1392x340-776

figure after preprocessing

Figure after Otsu segmentation with 30 blocks gaussFilter = 20



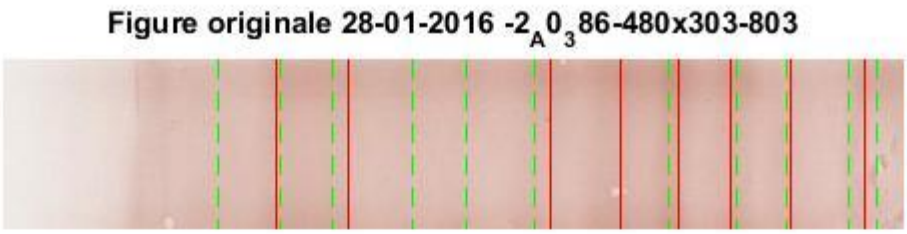
FN (Band oublie) =1; FP (Band ajoute) =3; match band = 4
gaussFilter = 20; nbrBlock = 30; rectangleSize = [3 7]

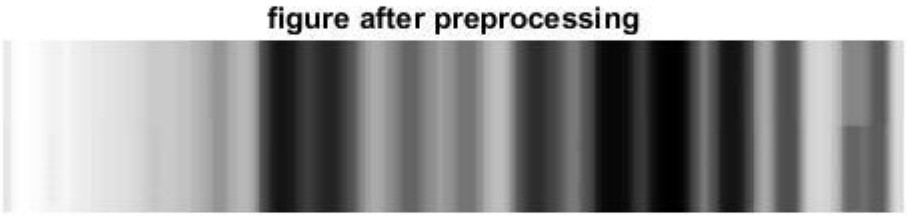
matchBands=[126 158 222 257]

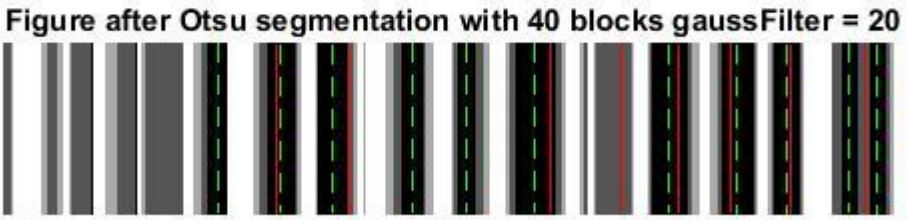
Accuracy = 0.5

$$confusionMatrix = \begin{matrix} 4 & 1 \\ 3 & 0 \end{matrix}$$

11. Etude avec Gerard/P/ 29-01-2015001_A0_1680-1778x413-803







FN (Band oublie) =1; FP (Band ajoute) =4; match band = 7

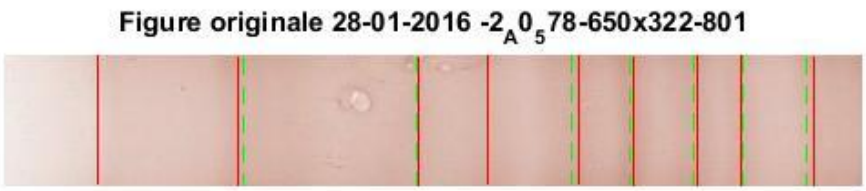
gaussFilter = 20; nbrBlock = 40; rectangleSize = [3 5]

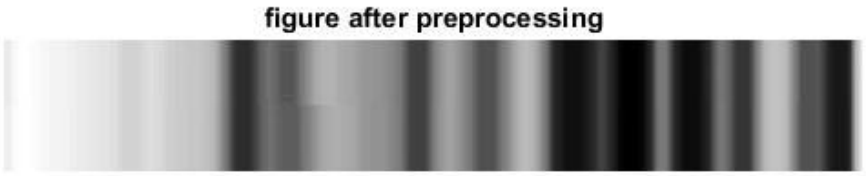
matchBands=[153 192 305 376 405 439 480]

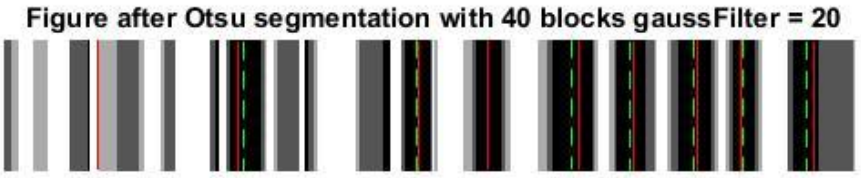
Accuracy = 0.5833

$$confusionMatrix = \begin{matrix} 7 & 1 \\ 4 & 0 \end{matrix}$$

12. Etude avec Gerard/P/ 28-01-2016 -2_A0_578-650x322-801







FN (Band oublie) =1; FP (Band ajoute) =0; match band = 8
gaussFilter = 20; nbrBlock = 40; rectangleSize = [3 7]

matchBands=[131 232 271 322 353 388 413 454]

Accuracy = 0.8889

$$confusionMatrix = \begin{matrix} 8 & 1 \\ 0 & 0 \end{matrix}$$

13. Etude avec Gerard/P/ 28-01-2016 -2_A0_768-842x303-788

Figure originale 28-01-2016 -2_A0_768-842x303-788

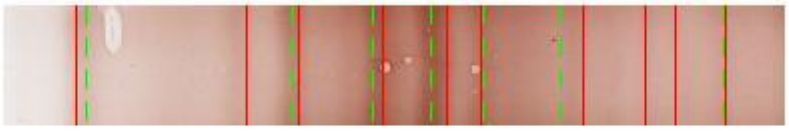
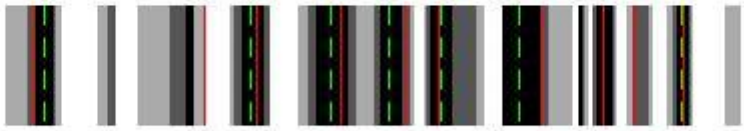


figure after preprocessing

Figure after Otsu segmentation with 20 blocks gaussFilter = 80



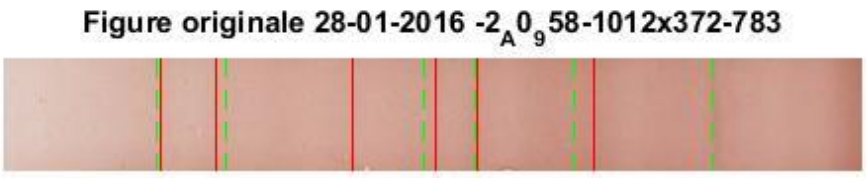
FN (Band oublie) =2; FP (Band ajoute) =0; match band = 8
gaussFilter = 80; nbrBlock = 20; rectangleSize = [5 7]

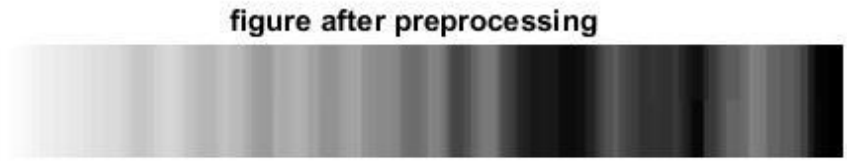
matchBands=[46 184 237 276 298 361 400 450]

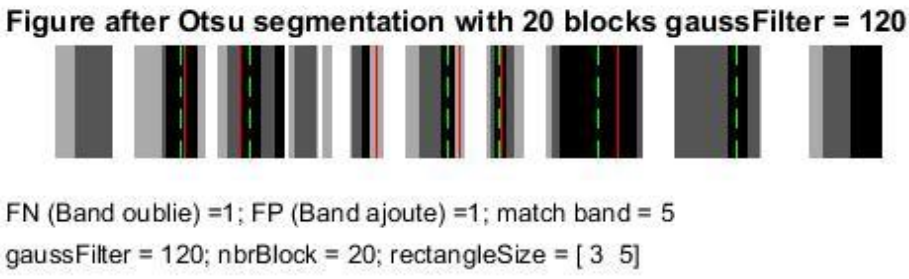
Accuracy = 0.8

$$confusionMatrix = \begin{matrix} 8 & 2 \\ 0 & 0 \end{matrix}$$

14. Etude avec Gerard/P/ 28-01-2016 -2_A0_958-1012x372-783





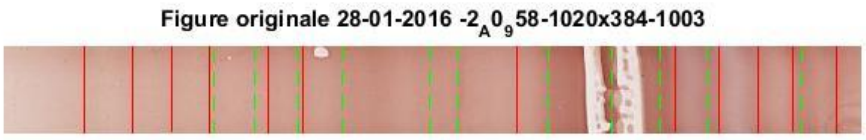


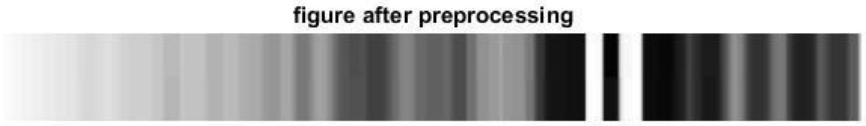
matchBands=[76 103 208 228 284]

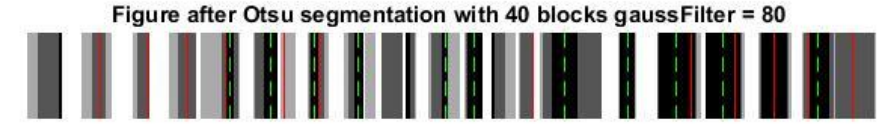
Accuracy = 0.7143

$$confusionMatrix = \begin{matrix} 5 & 1 \\ 1 & 0 \end{matrix}$$

15. Etude avec Gerard/P/ 28-01-2016 -2_A0_958-1020x384-1003







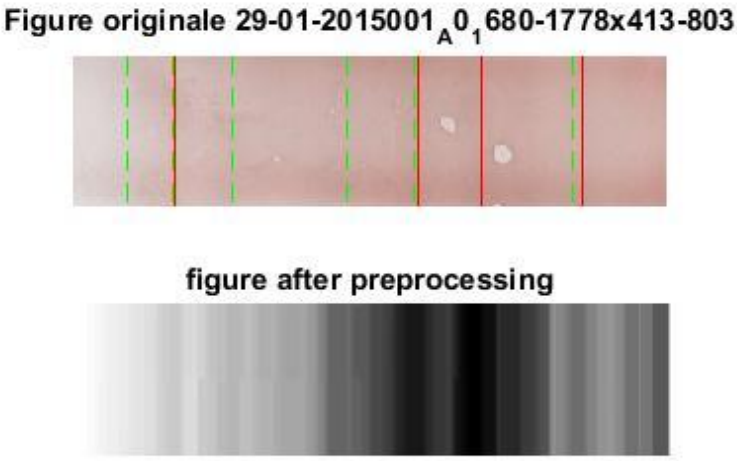
FN (Band oublie) =5; FP (Band ajoute) =5; match band = 7
gaussFilter = 80; nbrBlock = 40; rectangleSize = [5 7]

matchBands=[149 192 217 486 518 546 571]

Accuracy = 0.4118

$$confusionMatrix = \begin{matrix} 7 & 5 \\ 5 & 0 \end{matrix}$$

16. Etude avec Gerard/P/ 29-01-2015001_A0_1680-1778x413-803

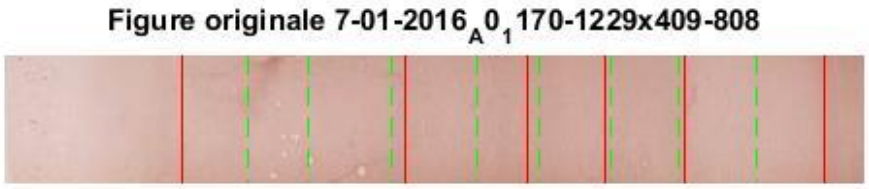


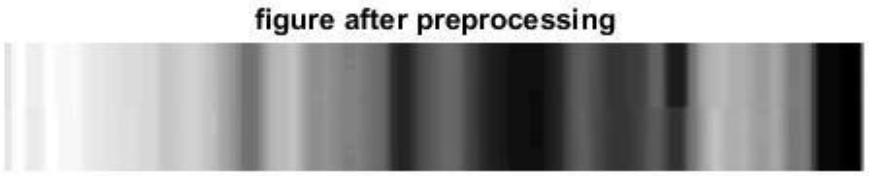
matchBands=[68 228 270 336]

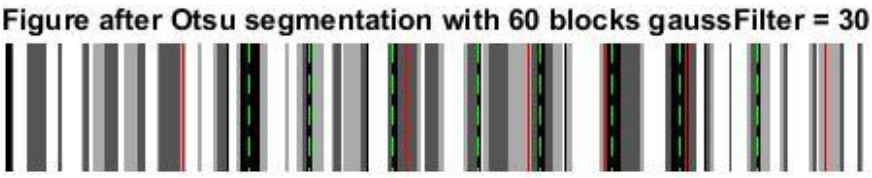
Accuracy = 0.5714

$$confusionMatrix = \begin{matrix} 4 & 0 \\ 3 & 0 \end{matrix}$$

17. Etude avec Gerard/P/ 7-01-2016_A0_1170-1229x409-808







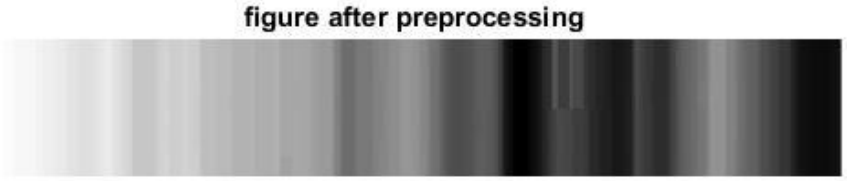
FN (Band oublie) =2; FP (Band ajoute) =4; match band = 4
gaussFilter = 30; nbrBlock = 60; rectangleSize = [3 5]

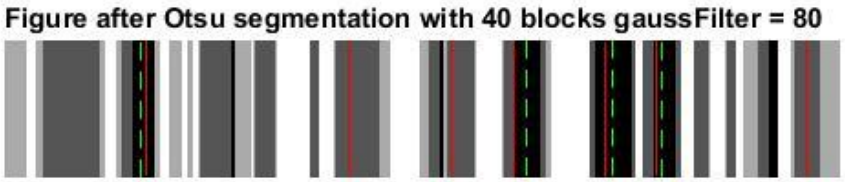
matchBands=[187 244 280 317 382]

Accuracy = 0.7142

$$confusionMatrix = \begin{matrix} 5 & 1 \\ 1 & 0 \end{matrix}$$

18. Etude avec Gerard/P/ 7-01-2016_A0_1358-1419x421-810





FN (Band oublie) =3; FP (Band ajoute) =0; match band = 4

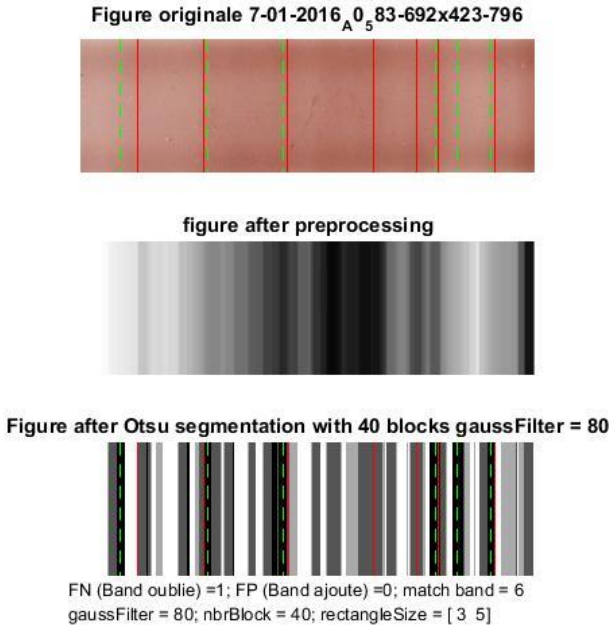
gaussFilter = 80; nbrBlock = 40; rectangleSize = [3 5]

matchBands=[74 241 283 306]

Accuracy = 0.5714

$$confusionMatrix = \begin{matrix} 4 & 3 \\ 0 & 0 \end{matrix}$$

19. Etude avec Gerard/P/ 7-01-2016_A0_985-1072x399-796.

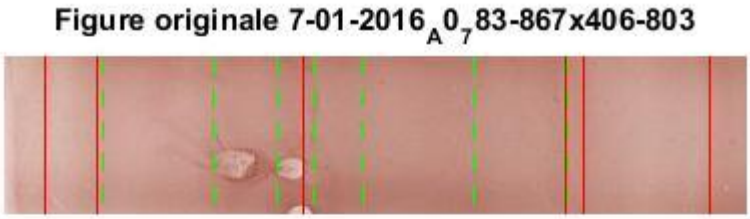


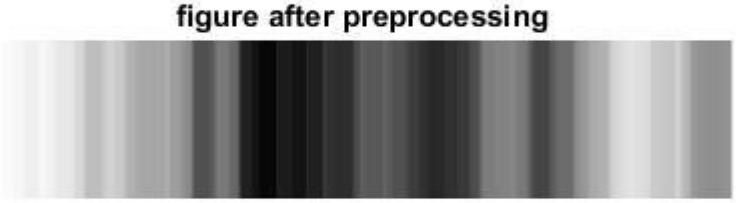
matchBands=[48 102 171 278 295 342]

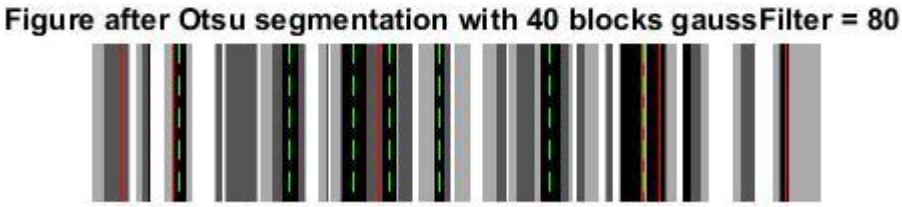
Accuracy = 0.8571

$$confusionMatrix = \begin{matrix} 6 & 1 \\ 0 & 0 \end{matrix}$$

20. Etude avec Gerard/P/ 7-01-2016_A0_783-867x406-803







FN (Band oublie) =2; FP (Band ajoute) =3; match band = 4
gaussFilter = 80; nbrBlock = 40; rectangleSize = [5 7]

matchBands = [50 161 301 311]

Accuracy = 0.4444

$$confusionMatrix = \begin{matrix} 4 & 2 \\ 3 & 0 \end{matrix}$$

21. Etude avec Gerard/P/ 7-01-2016_A0_985-1072x399-796

Figure originale 7-01-2016_A0_985-1072x399-796

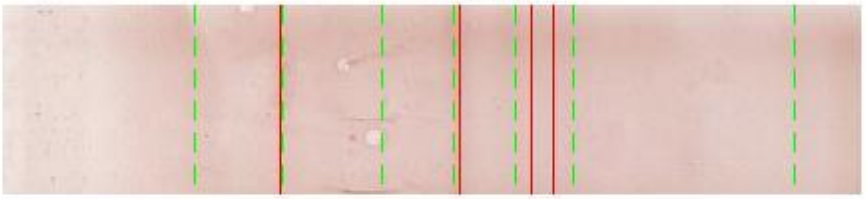
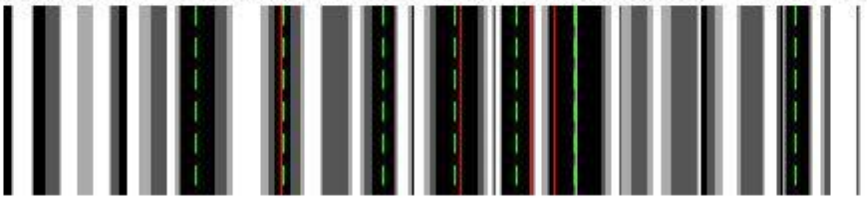


figure after preprocessing

Figure after Otsu segmentation with 40 blocks gaussFilter = 20



FN (Band oublie) =0; FP (Band ajoute) =3; match band = 4

gaussFilter = 20; nbrBlock = 40; rectangleSize = [5 7]

matchBands=[129 212 246 256]

Accuracy = 0.5714

$$confusionMatrix = \begin{matrix} 4 & 0 \\ 3 & 0 \end{matrix}$$