T_Full_0 =

ImageNames_0	ShapeFactor_0
'0mMCMP_Gel1_Image1'	0.416
'0mMCMP_Gel1_Image1'	0.485
'0mMCMP_Gel1_Image1'	0.612
'0mMCMP_Gel1_Image1'	0.372
'0mMCMP_Gel1_Image1'	0.38
'0mMCMP_Gel1_Image1'	0.249
'0mMCMP_Gel1_Image1'	0.635
'0mMCMP_Gel1_Image1'	0.382
'0mMCMP_Gel1_Image1'	0.52
'0mMCMP_Gel1_Image1'	0.4
'0mMCMP_Gel1_Image1'	0.609
'0mMCMP_Gel1_Image1'	0.331
'0mMCMP_Gel1_Image1'	0.351
'0mMCMP_Gel1_Image1'	0.64
'0mMCMP_Gel1_Image1'	0.309
'0mMCMP_Gel1_Image1'	0.426
'0mMCMP_Gel1_Image1'	0.317
'0mMCMP_Gel1_Image1'	0.279
'0mMCMP_Gel1_Image1'	0.202
'0mMCMP_Gel1_Image2'	0.457
'0mMCMP_Gel1_Image2'	0.384
'0mMCMP_Gel1_Image2'	0.433
'0mMCMP_Gel1_Image2'	0.34
'0mMCMP_Gel1_Image2'	0.401
'0mMCMP_Gel1_Image2'	0.687
'0mMCMP_Gel1_Image2'	0.551
'0mMCMP_Gel1_Image2'	0.546
'0mMCMP_Gel1_Image2'	0.349
'0mMCMP_Gel1_Image2'	0.61
'0mMCMP_Gel1_Image2'	0.349
'0mMCMP_Gel1_Image2'	0.421
'0mMCMP_Gel1_Image2'	0.308
'0mMCMP_Gel1_Image2'	0.339
'0mMCMP_Gel1_Image2'	0.289
'0mMCMP_Gel1_Image2'	0.374
'0mMCMP_Gel1_Image2'	0.643
'0mMCMP_Gel1_Image2'	0.315
'0mMCMP_Gel1_Image2'	0.479
'0mMCMP_Gel1_Image2'	0.56
'0mMCMP_Gel1_Image2'	0.278
'0mMCMP_Gel1_Image2'	0.29
'0mMCMP_Gel1_Image2'	0.171
'0mMCMP_Gel1_Image2'	0.495
'0mMCMP_Gel1_Image3'	0.333
'0mMCMP_Gel1_Image3'	0.331
'0mMCMP_Gel1_Image3'	0.432
'0mMCMP_Gel1_Image3'	0.365
'0mMCMP_Gel1_Image3'	0.633
'0mMCMP_Gel1_Image3'	0.312
'0mMCMP_Gel1_Image3'	0.445
'0mMCMP_Gel1_Image3'	0.491
'0mMCMP_Gel1_Image3'	0.285
'0mMCMP_Gel1_Image3'	0.276
'0mMCMP_Gel1_Image3'	0.279
'0mMCMP_Gel1_Image3'	0.466
'0mMCMP_Gel1_Image3'	0.515
'0mMCMP_Gel1_Image3'	0.309
'0mMCMP_Gel2_Image1'	0.306
'0mMCMP_Gel2_Image1'	0.421
'0mMCMP_Gel2_Image1'	0.247
'0mMCMP_Gel2_Image1'	0.303
'0mMCMP_Gel2_Image1'	0.349
'0mMCMP_Gel2_Image1'	0.312

'0mMCMP_Gel2_Image1'	0.296
'0mMCMP_Gel2_Image1'	0.322
'0mMCMP_Gel2_Image1'	0.316
'0mMCMP_Gel2_Image1'	0.354
'0mMCMP_Gel2_Image1'	0.558
'0mMCMP_Gel2_Image1'	0.258
'0mMCMP_Gel2_Image1'	0.281
'0mMCMP_Gel2_Image1'	0.336
'0mMCMP_Gel2_Image1'	0.266
'0mMCMP_Gel2_Image1'	0.327
'0mMCMP_Gel2_Image1'	0.466
'0mMCMP_Gel2_Image1'	0.572
'0mMCMP_Gel2_Image1'	0.497
'0mMCMP_Gel2_Image1'	0.242
'0mMCMP_Gel2_Image1'	0.459
'0mMCMP_Gel2_Image1'	0.238
'0mMCMP_Gel2_Image1'	0.274
'0mMCMP_Gel2_Image2'	0.259
'0mMCMP_Gel2_Image2'	0.349
'0mMCMP_Gel2_Image2'	0.3
'0mMCMP_Gel2_Image2'	0.249
'0mMCMP_Gel2_Image2'	0.351
'0mMCMP_Gel2_Image2'	0.533
'0mMCMP_Gel2_Image2'	0.348
'0mMCMP_Gel2_Image2'	0.35
'0mMCMP_Gel2_Image2'	0.427
'0mMCMP_Gel2_Image2'	0.519
'0mMCMP_Gel2_Image2'	0.449
'0mMCMP_Gel2_Image2'	0.566
'0mMCMP_Gel2_Image2'	0.484
'0mMCMP_Gel2_Image2'	0.625
'0mMCMP_Gel2_Image2'	0.579
'0mMCMP_Gel2_Image2'	0.381
'0mMCMP_Gel2_Image2'	0.524
'0mMCMP_Gel2_Image2'	0.269
'0mMCMP_Gel2_Image2'	0.268
'0mMCMP_Gel2_Image2'	0.69
'0mMCMP_Gel2_Image2'	0.319
'0mMCMP_Gel2_Image2'	0.512
'0mMCMP_Gel2_Image2'	0.45
'0mMCMP_Gel2_Image2'	0.343
'0mMCMP_Gel2_Image2'	0.367
'0mMCMP_Gel2_Image2'	0.616
'0mMCMP_Gel2_Image2'	0.227
'0mMCMP_Gel2_Image2'	0.314
'0mMCMP_Gel2_Image3'	0.36
'0mMCMP_Gel2_Image3'	0.399
'0mMCMP_Gel2_Image3'	0.72
'0mMCMP_Gel2_Image3'	0.599
'0mMCMP_Gel2_Image3'	0.701
'0mMCMP_Gel2_Image3'	0.616
'0mMCMP_Gel2_Image3'	0.587
'0mMCMP_Gel2_Image3'	0.568
'0mMCMP_Gel2_Image3'	0.671
'0mMCMP_Gel2_Image3'	0.628
'0mMCMP_Gel2_Image3'	0.676
'0mMCMP_Gel2_Image3'	0.606
'0mMCMP_Gel2_Image3'	0.34
'0mMCMP_Gel2_Image3'	0.671
'0mMCMP_Gel2_Image3'	0.631
'0mMCMP_Gel2_Image3'	0.633
'0mMCMP_Gel2_Image3'	0.345
'0mMCMP_Gel2_Image3'	0.635
'0mMCMP_Gel2_Image3'	0.251
'0mMCMP_Gel2_Image3'	0.274
'0mMCMP_Gel2_Image3'	0.25
'0mMCMP_Gel2_Image3'	0.33
'0mMCMP_Gel2_Image3'	0.399
'0mMCMP_Gel2_Image3'	0.215

```
    '0mMCMP_Gel2_Image3'    0.342
    '0mMCMP_Gel2_Image3'    0.402
    '0mMCMP_Gel2_Image3'    0.666
    '0mMCMP_Gel2_Image3'    0.443
    '0mMCMP_Gel2_Image3'    0.612
    '0mMCMP_Gel2_Image3'    0.342
    '0mMCMP_Gel2_Image3'    0.413
    '0mMCMP_Gel2_Image3'     0.17
    '0mMCMP_Gel3_Image1'    0.576
    '0mMCMP_Gel3_Image1'    0.368
    '0mMCMP_Gel3_Image1'    0.476
    '0mMCMP_Gel3_Image1'    0.394
    '0mMCMP_Gel3_Image1'    0.391
    '0mMCMP_Gel3_Image1'     0.37
    '0mMCMP_Gel3_Image1'     0.35
    '0mMCMP_Gel3_Image1'    0.357
    '0mMCMP_Gel3_Image1'    0.503
    '0mMCMP_Gel3_Image1'    0.484
    '0mMCMP_Gel3_Image1'    0.348
    '0mMCMP_Gel3_Image1'    0.425
    '0mMCMP_Gel3_Image1'    0.492
    '0mMCMP_Gel3_Image1'    0.486
    '0mMCMP_Gel3_Image1'     0.57
    '0mMCMP_Gel3_Image1'    0.254
    '0mMCMP_Gel3_Image1'    0.259
    '0mMCMP_Gel3_Image1'    0.381
    '0mMCMP_Gel3_Image1'    0.287
    '0mMCMP_Gel3_Image1'    0.688
    '0mMCMP_Gel3_Image1'    0.331
    '0mMCMP_Gel3_Image1'    0.245
    '0mMCMP_Gel3_Image1'    0.207
    '0mMCMP_Gel3_Image2'    0.418
    '0mMCMP_Gel3_Image2'    0.391
    '0mMCMP_Gel3_Image2'    0.586
    '0mMCMP_Gel3_Image2'    0.306
    '0mMCMP_Gel3_Image2'    0.511
    '0mMCMP_Gel3_Image2'     0.42
    '0mMCMP_Gel3_Image2'    0.501
    '0mMCMP_Gel3_Image2'    0.616
    '0mMCMP_Gel3_Image2'    0.623
    '0mMCMP_Gel3_Image2'    0.565
    '0mMCMP_Gel3_Image2'    0.445
    '0mMCMP_Gel3_Image2'    0.463
    '0mMCMP_Gel3_Image2'    0.574
    '0mMCMP_Gel3_Image2'    0.266
    '0mMCMP_Gel3_Image2'    0.617
    '0mMCMP_Gel3_Image2'     0.35
    '0mMCMP_Gel3_Image2'    0.591
    '0mMCMP_Gel3_Image2'    0.396
    '0mMCMP_Gel3_Image2'    0.633
    '0mMCMP_Gel3_Image2'    0.386
    '0mMCMP_Gel3_Image2'    0.433
    '0mMCMP_Gel3_Image2'    0.517
    '0mMCMP_Gel3_Image2'    0.333
    '0mMCMP_Gel3_Image2'    0.661
    '0mMCMP_Gel3_Image2'    0.241
    '0mMCMP_Gel3_Image2'    0.537
    '0mMCMP_Gel3_Image2'    0.414
    '0mMCMP_Gel3_Image2'    0.463
    '0mMCMP_Gel3_Image2'    0.519
    '0mMCMP_Gel3_Image2'    0.457
    '0mMCMP_Gel3_Image2'    0.219
    '0mMCMP_Gel3_Image2'    0.383
    '0mMCMP_Gel3_Image3'    0.551
    '0mMCMP_Gel3_Image3'    0.417
    '0mMCMP_Gel3_Image3'    0.489
    '0mMCMP_Gel3_Image3'    0.374
    '0mMCMP_Gel3_Image3'    0.208
    '0mMCMP_Gel3_Image3'     0.38
```

'0mMCMP_Gel3_Image3'	0.555
'0mMCMP_Gel3_Image3'	0.466
'0mMCMP_Gel3_Image3'	0.345
'0mMCMP_Gel3_Image3'	0.271
'0mMCMP_Gel3_Image3'	0.645
'0mMCMP_Gel3_Image3'	0.412
'0mMCMP_Gel3_Image3'	0.242
'0mMCMP_Gel3_Image3'	0.399
'0mMCMP_Gel3_Image3'	0.528
'0mMCMP_Gel3_Image3'	0.209
'0mMCMP_Gel3_Image3'	0.373
'0mMCMP_Gel3_Image3'	0.394

T_Full_10 =

ImageNames_10	ShapeFactor_10
'10mMCMP_Gel1_Image1'	0.624
'10mMCMP_Gel1_Image1'	0.342
'10mMCMP_Gel1_Image1'	0.506
'10mMCMP_Gel1_Image1'	0.445
'10mMCMP_Gel1_Image1'	0.518
'10mMCMP_Gel1_Image1'	0.385
'10mMCMP_Gel1_Image1'	0.525
'10mMCMP_Gel1_Image1'	0.539
'10mMCMP_Gel1_Image1'	0.473
'10mMCMP_Gel1_Image1'	0.492
'10mMCMP_Gel1_Image1'	0.275
'10mMCMP_Gel1_Image1'	0.245
'10mMCMP_Gel1_Image1'	0.299
'10mMCMP_Gel1_Image1'	0.354
'10mMCMP_Gel1_Image1'	0.187
'10mMCMP_Gel1_Image1'	0.445
'10mMCMP_Gel1_Image2'	0.42
'10mMCMP_Gel1_Image2'	0.346
'10mMCMP_Gel1_Image2'	0.403
'10mMCMP_Gel1_Image2'	0.601
'10mMCMP_Gel1_Image2'	0.492
'10mMCMP_Gel1_Image2'	0.333
'10mMCMP_Gel1_Image2'	0.327
'10mMCMP_Gel1_Image2'	0.614
'10mMCMP_Gel1_Image2'	0.31
'10mMCMP_Gel1_Image2'	0.49
'10mMCMP_Gel1_Image2'	0.55
'10mMCMP_Gel1_Image2'	0.538
'10mMCMP_Gel1_Image2'	0.264
'10mMCMP_Gel1_Image2'	0.317
'10mMCMP_Gel1_Image2'	0.385
'10mMCMP_Gel1_Image2'	0.571
'10mMCMP_Gel1_Image2'	0.445
'10mMCMP_Gel1_Image2'	0.513
'10mMCMP_Gel1_Image2'	0.458
'10mMCMP_Gel1_Image2'	0.503
'10mMCMP_Gel1_Image2'	0.613
'10mMCMP_Gel1_Image2'	0.221
'10mMCMP_Gel1_Image3'	0.532
'10mMCMP_Gel1_Image3'	0.415
'10mMCMP_Gel1_Image3'	0.65
'10mMCMP_Gel1_Image3'	0.544
'10mMCMP_Gel1_Image3'	0.49
'10mMCMP_Gel1_Image3'	0.31
'10mMCMP_Gel1_Image3'	0.342
'10mMCMP_Gel1_Image3'	0.467
'10mMCMP_Gel1_Image3'	0.189
'10mMCMP_Gel2_Image1'	0.357
'10mMCMP_Gel2_Image1'	0.388
'10mMCMP_Gel2_Image1'	0.602

```
    '10mMCMP_Gel2_Image1'    0.591
    '10mMCMP_Gel2_Image1'    0.466
    '10mMCMP_Gel2_Image1'    0.326
    '10mMCMP_Gel2_Image1'    0.439
    '10mMCMP_Gel2_Image1'    0.332
    '10mMCMP_Gel2_Image1'    0.583
    '10mMCMP_Gel2_Image1'    0.466
    '10mMCMP_Gel2_Image1'    0.335
    '10mMCMP_Gel2_Image1'    0.264
    '10mMCMP_Gel2_Image1'    0.251
    '10mMCMP_Gel2_Image1'    0.318
    '10mMCMP_Gel2_Image1'    0.668
    '10mMCMP_Gel2_Image1'    0.341
    '10mMCMP_Gel2_Image1'    0.312
    '10mMCMP_Gel2_Image1'    0.206
    '10mMCMP_Gel2_Image1'     0.33
    '10mMCMP_Gel2_Image1'    0.341
    '10mMCMP_Gel2_Image1'    0.583
    '10mMCMP_Gel2_Image1'     0.37
    '10mMCMP_Gel2_Image1'    0.628
    '10mMCMP_Gel2_Image1'    0.521
    '10mMCMP_Gel2_Image1'    0.353
    '10mMCMP_Gel2_Image1'    0.464
    '10mMCMP_Gel2_Image1'    0.597
    '10mMCMP_Gel2_Image1'    0.499
    '10mMCMP_Gel2_Image1'    0.245
    '10mMCMP_Gel2_Image1'    0.312
    '10mMCMP_Gel2_Image1'    0.642
    '10mMCMP_Gel2_Image1'    0.357
    '10mMCMP_Gel2_Image1'    0.648
    '10mMCMP_Gel2_Image1'    0.282
    '10mMCMP_Gel2_Image1'    0.406
    '10mMCMP_Gel2_Image1'     0.44
    '10mMCMP_Gel2_Image1'     0.18
    '10mMCMP_Gel2_Image1'    0.189
    '10mMCMP_Gel2_Image1'    0.563
    '10mMCMP_Gel2_Image2'    0.555
    '10mMCMP_Gel2_Image2'    0.425
    '10mMCMP_Gel2_Image2'    0.624
    '10mMCMP_Gel2_Image2'    0.411
    '10mMCMP_Gel2_Image2'    0.658
    '10mMCMP_Gel2_Image2'    0.457
    '10mMCMP_Gel2_Image2'    0.395
    '10mMCMP_Gel2_Image2'    0.187
    '10mMCMP_Gel2_Image2'    0.579
    '10mMCMP_Gel2_Image2'    0.578
    '10mMCMP_Gel2_Image2'     0.39
    '10mMCMP_Gel2_Image2'    0.464
    '10mMCMP_Gel2_Image2'    0.266
    '10mMCMP_Gel2_Image2'    0.509
    '10mMCMP_Gel2_Image2'    0.245
    '10mMCMP_Gel2_Image2'    0.341
    '10mMCMP_Gel2_Image2'    0.363
    '10mMCMP_Gel2_Image2'     0.18
    '10mMCMP_Gel2_Image2'    0.369
    '10mMCMP_Gel2_Image2'    0.477
    '10mMCMP_Gel2_Image2'    0.325
    '10mMCMP_Gel2_Image3'    0.281
    '10mMCMP_Gel2_Image3'     0.34
    '10mMCMP_Gel2_Image3'    0.561
    '10mMCMP_Gel2_Image3'    0.318
    '10mMCMP_Gel2_Image3'    0.379
    '10mMCMP_Gel2_Image3'    0.302
    '10mMCMP_Gel2_Image3'    0.256
    '10mMCMP_Gel2_Image3'    0.282
    '10mMCMP_Gel2_Image3'    0.376
    '10mMCMP_Gel2_Image3'    0.229
    '10mMCMP_Gel2_Image3'    0.415
    '10mMCMP_Gel2_Image3'    0.216
```

```
    '10mMCMP_Gel2_Image3'    0.549
    '10mMCMP_Gel2_Image3'    0.623
    '10mMCMP_Gel2_Image3'    0.243
    '10mMCMP_Gel2_Image3'    0.172
    '10mMCMP_Gel3_Image1'    0.413
    '10mMCMP_Gel3_Image1'    0.316
    '10mMCMP_Gel3_Image1'    0.235
    '10mMCMP_Gel3_Image1'    0.244
    '10mMCMP_Gel3_Image1'    0.138
    '10mMCMP_Gel3_Image1'    0.236
    '10mMCMP_Gel3_Image1'    0.485
    '10mMCMP_Gel3_Image1'    0.393
    '10mMCMP_Gel3_Image2'    0.522
    '10mMCMP_Gel3_Image2'    0.287
    '10mMCMP_Gel3_Image2'    0.254
    '10mMCMP_Gel3_Image2'    0.442
    '10mMCMP_Gel3_Image2'    0.414
    '10mMCMP_Gel3_Image2'    0.545
    '10mMCMP_Gel3_Image2'    0.327
    '10mMCMP_Gel3_Image2'    0.432
    '10mMCMP_Gel3_Image2'    0.467
    '10mMCMP_Gel3_Image3'     0.28
    '10mMCMP_Gel3_Image3'    0.685
    '10mMCMP_Gel3_Image3'     0.32
    '10mMCMP_Gel3_Image3'    0.346
    '10mMCMP_Gel3_Image3'    0.326
    '10mMCMP_Gel3_Image3'    0.329
    '10mMCMP_Gel3_Image3'      0.2
    '10mMCMP_Gel3_Image3'    0.349
    '10mMCMP_Gel3_Image3'     0.26
    '10mMCMP_Gel3_Image3'    0.352
    '10mMCMP_Gel3_Image3'    0.506
    '10mMCMP_Gel3_Image3'    0.439
    '10mMCMP_Gel3_Image3'    0.426
    '10mMCMP_Gel3_Image3'    0.464
    '10mMCMP_Gel3_Image3'    0.377
    '10mMCMP_Gel3_Image3'     0.26
    '10mMCMP_Gel3_Image3'    0.131
    '10mMCMP_Gel3_Image3'    0.347
    '10mMCMP_Gel3_Image3'    0.146


Shape factor analysis

    GelComposition    Average    StError     Median    Mode     Skewness    Kurtosis
    ______________    _______    ________    ______    _____    ________    ________

    '0mMCMP'          0.42232    0.076821    0.399     0.349    0.34221     2.1088
    '10mMCMP'         0.39959    0.076452    0.385     0.245    0.15237      2.186


p =

    0.0940


tbl =

  4×6 cell array

    'Source'    'SS'        'df'     'MS'        'F'         'Prob>F'
    'Groups'    [0.0498]    [  1]    [0.0498]    [2.8195]    [0.0940]
    'Error'     [6.4660]    [366]    [0.0177]          []          []
    'Total'     [6.5159]    [367]          []          []          []


stats =

  struct with fields:
```

```
    gnames: {2×1 cell}
         n: [211 157]
    source: 'anova1'
     means: [0.4221 0.3985]
        df: 366
         s: 0.1329


ShapeFactor_comparison =

    1.0000    2.0000   -0.0039    0.0235    0.0510    0.0931


Bin =

gel1,rounded gel1,spread gel1,elongated
gel2,rounded gel2,spread gel2,elongated
gel3,rounded gel3,spread gel3,elongated


ShapeFactor_0_Count =

    13    41     3
    27    48     8
    22    44     7


ShapeFactor_10_Count =

    16    27     4
    20    45    11
     4    25     7

>>
```