Supporting Information

Tailoring Rice Flour Structure by Rubbery Milling for Improved Gluten-Free Baked Goods

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Bread quality was assessed by determining the specific loaf volume (Volscan Stable Micro System) and crumb pore size distribution (scanning and image analysis with Fiji). The following supporting information provides more information on the processing steps required to determine the pore size distribution.

The macro employed to calculate the pore size distribution of the bread slices using the Fiji Software is provided:

```
run('8-bit');
//run('Brightness/Contrast...');
run('Enhance Contrast', 'saturated=0.35');
run('Sharpen', 'stack');
run('Median...', 'radius=2 stack');
setAutoThreshold('Default');
//run('Threshold...');
setAutoThreshold('Default');
setThreshold(0, x);
setOption('BlackBackground', false);
run('Make Binary', 'method=Default background=Default thresholded remaining
black');
run('Remove Outliers...', 'radius=2 threshold=50 which=Dark stack');
run('Remove Outliers...', 'radius=2 threshold=50 which=Bright stack');
run('Erode', 'stack');
run('Dilate', 'stack');
run('Analyze Particles...', 'size=0-Infinity circularity=0.00-1.00 show=Masks dis-
play exclude clear include summarize add in_situ stack');
roiManager('Show All with labels');
roiManager('Show All');
roiManager('Show All with labels');
roiManager('Show All');
```

To determine the pore size distribution, the cross section of 3 slices per bread were scanned and processed as illustrated in Figure S1. A section of defined size was cropped from the scanned image (Figure S1A). The contrast of the resulting cropped image was enhanced (Figure S1B) and the image was sharpened (Figure S1C) followed by a median correction (Figure S1D). The light threshold was adjusted to highlight the pores in black (Figure S1E) and compute the pore area (Figure S1F). A mean pore diameter was then calculated from the area measurement.
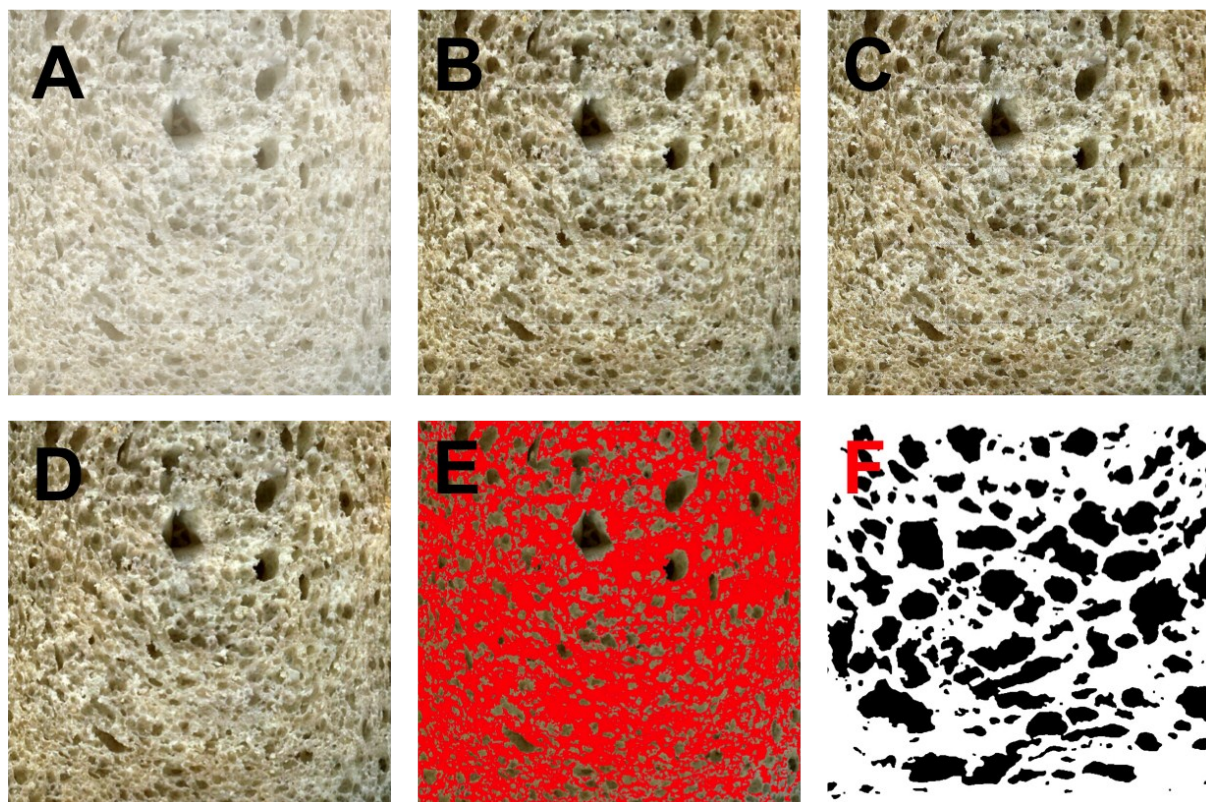
Figure S1. Illustration of the processing steps applied to obtain the pore size distribution of the bread slices. A: Bread crumb, B: Enhanced contrast, C: Sharpened, D: Median corrected, E: Applied threshold, F: Pores