WATER-BINDING CAPACITY: A MEASURE FOR THE BINDING IN PROTEIN PARTICLES?

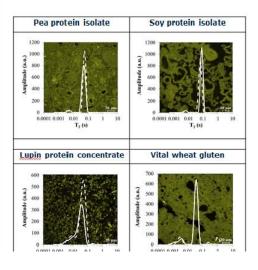
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The water-binding capacity (WBC) for pea protein isolate, soy protein isolate, lupin protein concentrate and vital wheat gluten particles was measured via the weight of pellets obtained by centrifuging the protein dispersions. All pellets, except the one consisting of pea protein isolate particles, contained water between the particles. Therefore, the WBC of the pellet is not the same as the WBC of the protein particles. Hence, the water division inside the pellet should be evaluated further. A combination of TD NMR and microscopy turned out to be a good option, giving insight in the structure of the pellet, and it can potentially give an indication of the amount of water that is present in each water domain (i.e. inside and between the protein particles).



A SIGNIFICANT A MOUNT OF WATER IS PRESENT BETWEEN THE PROTEIN

