Supplementary Table S.1: Raman peak assignment for radiation induced principal component 1 (PC1). Only main spectral contributors to the PC are listed.

	Assignment			
Raman Shift (cm^{-1})	**Nucleic Acid**	**Protein**	**Lipid**	**Carbohydrate**
479				glyc.
580				glyc.
726	A[1]			
784	C,U ring str. [2]			
810			O-P-O[3]	
850				glyc.
940				glyc.
955-994	d.[4]	C-C str.[4]	C-C[3]	
1002		phe. sym. rb.[3]		
1042				glyc.
1082				glyc.
1129				glyc.
1178		phe. ring str.[5]		
		tyr.[6]		
1249	T[4]	am. III β[3]		
1297	A[7]	CH def. [7]	CH_2 tw.[3]	
1335				glyc.
1382				glyc.

	Assignment			
Raman Shift (cm^{-1})	**Nucleic Acid**	**Protein**	**Lipid**	**Carbohydrate**
1442		CH def.[3]	CH def.[3]	
1659	T, C, G[4]	am. I[4]		

Glycogen (glyc), tyrosine (tyr), adenine (A), cytosine (C), uracil (U), stretch (str), deoxyribose (d), phenylalanine (phe), symmetric (sym), ring breathing (rb), vibration (vib), bending (bd), thymine (T), amide (am), β sheet (β), deformation (def), twist (tw), guanine (G).

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