

Supporting Figures for:

Predicting evolutionary site variability from structure in viral proteins: buriedness, packing, flexibility, and design

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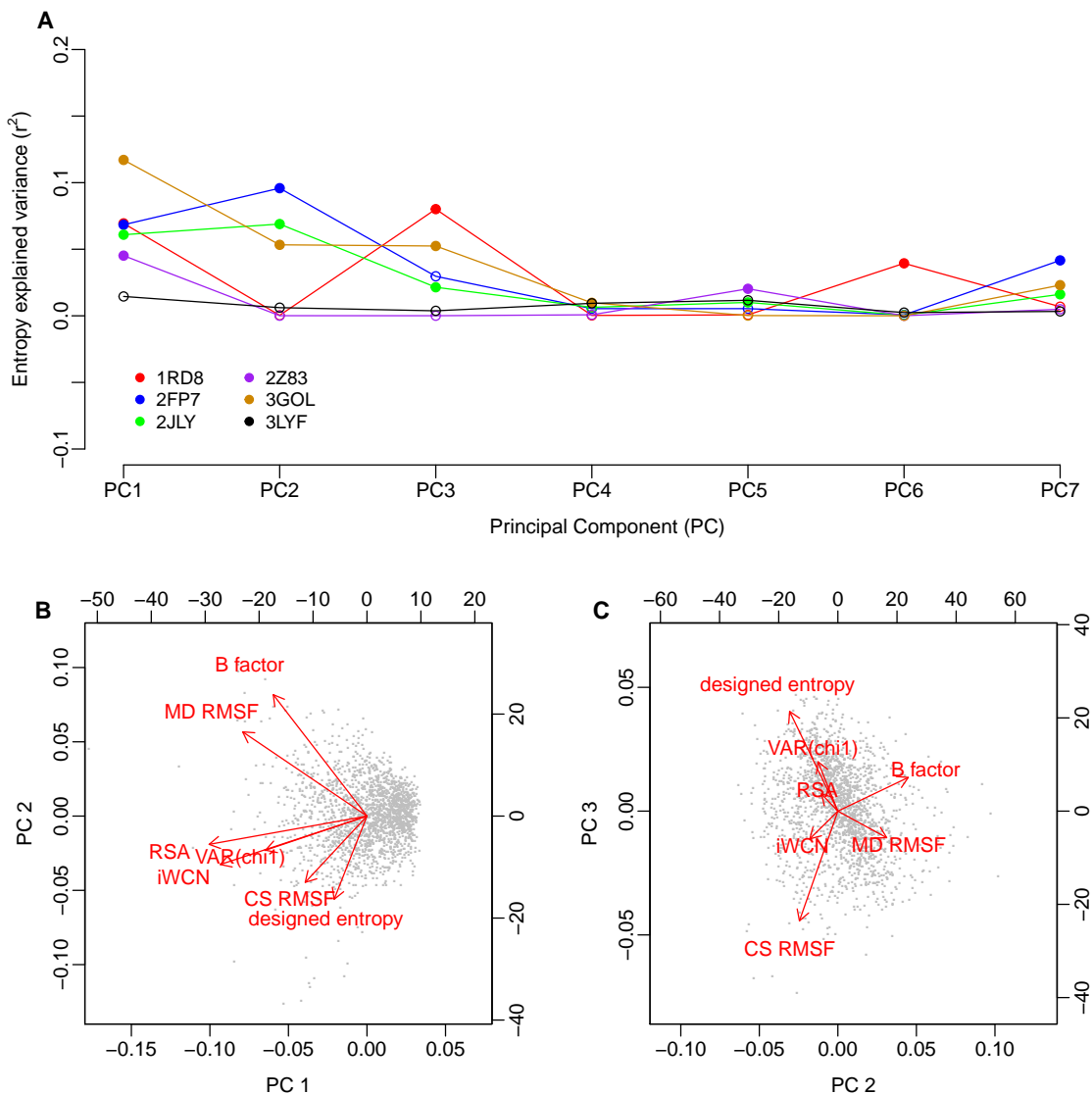


Fig. S1 Principal Component (PC) Regression of sequence entropy against the structural variables, including CS RMSF. **(A)** Variance in entropy explained by each principal component. For most proteins, PC1 and either PC2 or PC3 show the strongest correlations with sequence entropy. Significant correlations ($P < 0.05$) are shown as filled symbols, and insignificant correlations ($P \geq 0.05$) are shown as open symbols. **(B)** and **(C)** Composition of the three leading components. Red arrows represent the loadings of each of the structural variables on the principal components; black dots represent the amino acid sites in the PC coordinate system.

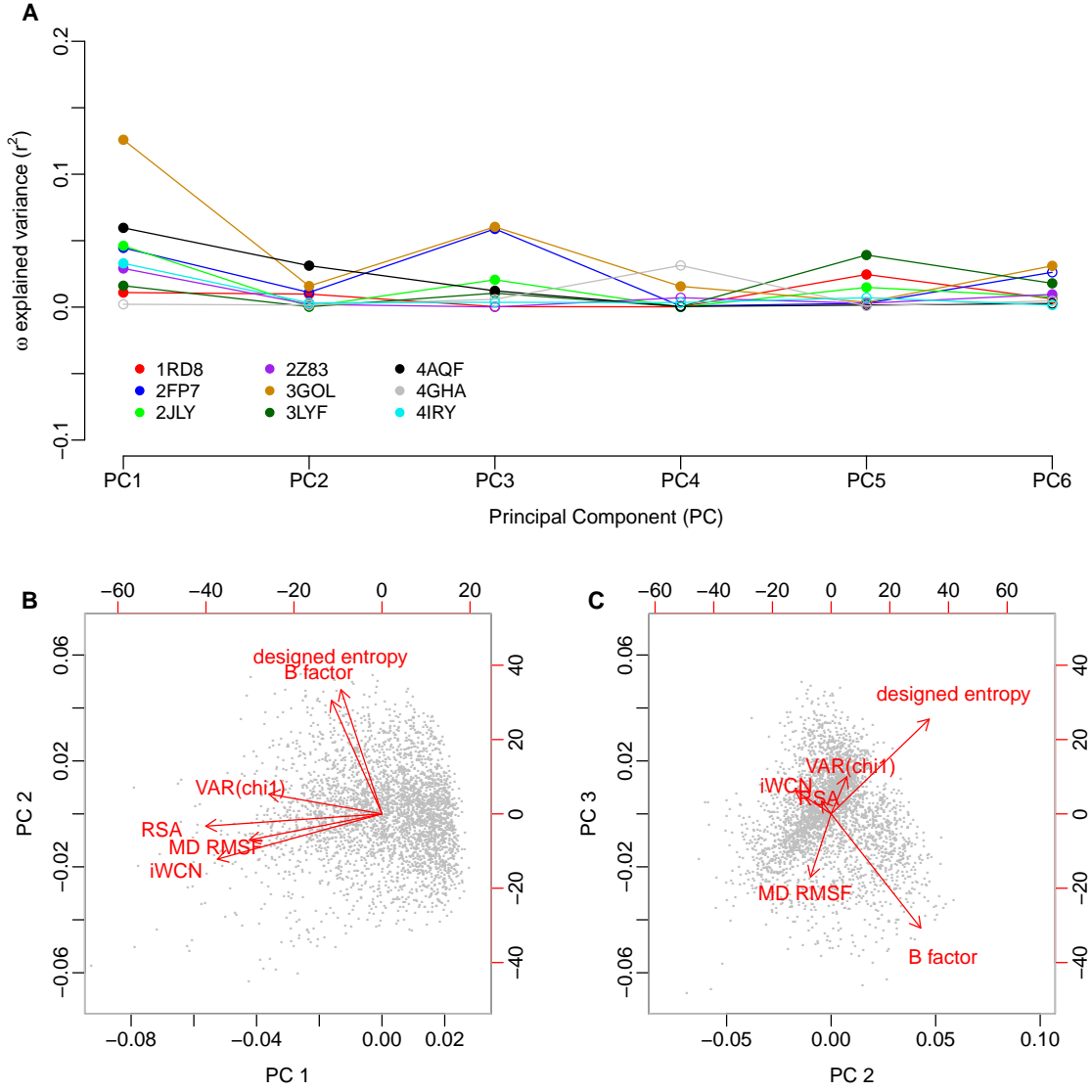


Fig. S2 Principal Component (PC) Regression of ω against the structural variables. **(A)** Variance in ω explained by each principal component. For most proteins, PC1 and PC3 show the strongest correlations with ω . Significant correlations ($P < 0.05$) are shown as filled symbols, and insignificant correlations ($P \geq 0.05$) are shown as open symbols. **(B)** and **(C)** Composition of the three leading components. Red arrows represent the loadings of each of the structural variables on the principal components; black dots represent the amino acid sites in the PC coordinate system. Note that parts B and C are identical to those shown in Figure 6.

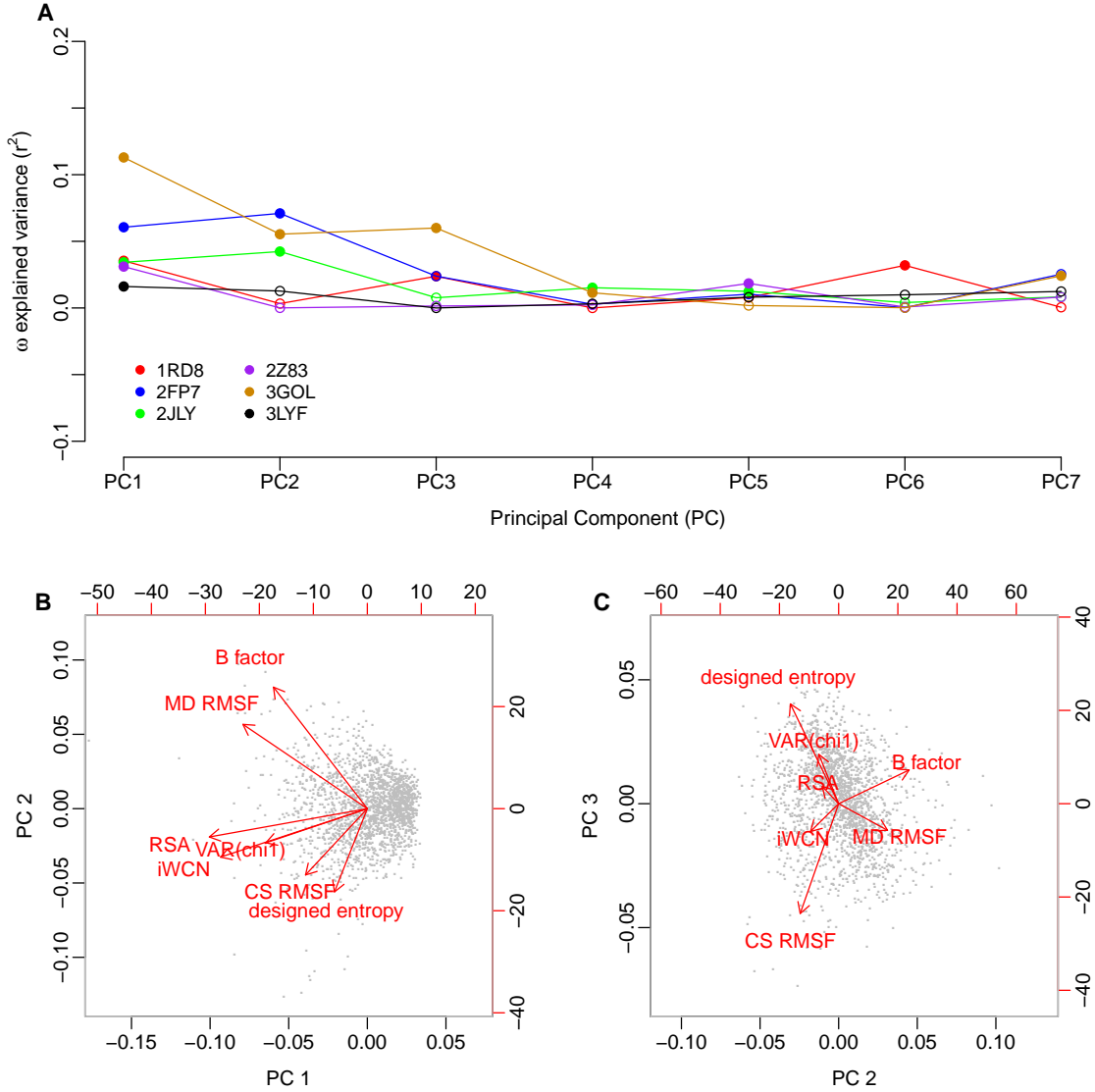


Fig. S3 Principal Component (PC) Regression of ω against the structural variables, including CS RMSF. **(A)** Variance in ω explained by each principal component. For most proteins, PC1 and either PC2 or PC3 show the strongest correlations with ω . Significant correlations ($P < 0.05$) are shown as filled symbols, and insignificant correlations ($P \geq 0.05$) are shown as open symbols. **(B)** and **(C)** Composition of the three leading components. Red arrows represent the loadings of each of the structural variables on the principal components; black dots represent the amino acid sites in the PC coordinate system. Note that parts B and C are identical to those shown in Figure S1.